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Birds

WILD BIRDS IN CITY PARKS

WALTER

EIGHTEENTH THOUSAND

Illinois

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Wild Birds in City Parks

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BIRDS

Being hints on identifying 200 birds, prepared primarily for the spring migration in Lincoln Park, Chicago, but adapted to other localities

BY

HERBERT EUGENE WALTER

AND

ALICE HALL WALTER

FOURTH ENLARGED REVISION
With Chart and Key

AUTHORS' EDITION
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"The first sparrow of spring! The year beginning with younger hope than ever! The faint silvery warblings heard over the partially bare and moist fields from the bluebird, the song sparrow and the red-wing, as if the last flakes of winter tinkled as they fell."

—*Thoreau's Walden.*

Note to the Fourth Edition.

A springtime has not yet passed without the arrival of the migrating birds. Upon this attractive subject an increasing number of new books appear every year, yet it seems probable from the way in which successive printings of this little book have been exhausted that there still exists a need for a simple, compact field manual at a minimum price.

The present edition is considerably enlarged by descriptions of over fifty additional birds, a revised key and a new table of comparative distribution. The entire subject matter also has undergone a thorough revision with the end in view of making the book useful in all localities in northeastern United States from the Mississippi to the Atlantic coast.

The authors wish to thank all those who have joined hands with them in the past and hope in the name of the birds that the circle may grow still larger in the days to come.

"All nature is so full that that district produces the greatest variety which is most examined."

—*Gilbert White*, 1768.

Preface.

The object of this little book is to furnish those who may be interested in making the acquaintance of wild birds with a simple letter of introduction to 200 birds, the majority of which are commonly seen during the spring migration.

Complete descriptions have been avoided, in the belief that the student should rely upon his own observation for the discovery of minor details. *The living bird* is the one important fact which will make the brief hints offered of value.

Anyone caring to make use of these hints may be assured that during the migrations of the birds city dwellers have one of the keenest delights of country life brought to their very doors, because many birds, migrating largely at night, are attracted by the lights of the city and stop off in their long journey to feed, so that a city park often contains a greater variety of feathered visitors than an equal area in the country.

We wish to remind those of our friends who have asked for pictures in a future edition that every springtime this book is copiously illustrated in our parks and around our homes by hundreds of living birds and that these illustrations are all life size, absolutely accurate in detail and colored true to nature.

"As for the birds * * * they add immeasurably to the wholesome beauty of life."

—*Theodore Roosevelt, in Bird Lore, Vol. II, p.* 98.

General Hints.

"A good observer is quick to take a hint and follow it up."—*John Burroughs.*

The identification of birds depends quite as much upon accurate observation of their size, motions, flight, characteristic attitudes, manner of feeding, company, song, call-notes and haunts, as upon details of form and color. Especial care is necessary to insure correct estimates of size for the reason that living birds often appear smaller to the unpracticed eye than they actually are. The familiar *English Sparrow* is a convenient standard of size because it is usually at hand either in city or country for instant reference. Remembering that it is 6 *inches long* a practical though rough division of wild birds may be made as follows:—

1. Birds smaller than the *English Sparrow.*
2. Birds about the size of the *English Sparrow.*
3. Birds decidedly larger than the *English Sparrow.*

If a few general characteristics of the common bird-families be kept in mind, and these are quickly and almost unconsciously learned, the identity of a strange bird may usually be narrowed down to a few possibilities. For example:

Woodpeckers climb up and down the trunks of trees bracing with their tails and tapping the bark vigorously;

Nuthatches are smaller than woodpeckers and have much the same habit of climbing up and down tree-trunks but with a freer wig-wagging motion, often descending head downward;

Flycatchers sit erect with drooping tails, watching alertly for insect prey upon which they pounce in mid air, afterwards returning to their perch;

Swallows skim through the air in graceful and long sustained flights;

Sparrows have stout seed-cracking bills, feed upon the ground, seldom fly high or far at a time and are for the most part fine songsters;

Warblers are tiny, tireless, gaily-colored explorers of the twigs of trees and bushes;

Kinglets are smaller than warblers and quite as restless in their motions, but arrive earlier in the migration;

Wrens, with tails erect, slip mouse-like about brush heaps, crevices and bushes, though often perching in sight while singing;

Thrushes, who with the exception of the *Robin* and *Bluebird* are very plainly dressed, run about on the ground stopping suddenly in a listening attitude. When singing they fly up to some perch, although many of the unrivaled singers of this family are silent during their brief sojourn in city parks;

Vireos are most at home on the boughs of trees and sing freely as they glide in and out among the leaves to feed.

Female birds can usually be identified after the adult males have been seen, although the females and young of many species are obscurely marked or quite different from the adult males, a fact especially true of the warblers. Immature birds are not considered in the present scheme of

study since they are a source of confusion to the beginner and occur in any considerable number only during the fall migration.

The time of arrival, that is, when a bird may be expected during the migration, is a point worthy of particular attention. Many wild guesses may be avoided by simply noticing the dates when a bird has been known to arrive in any given locality from year to year.

By eliminating all birds whose arrival is decidedly earlier or later than that of the one in question, the matter is usually narrowed down to a few species whose identification is thus made much easier.

The safest way, however, is to make careful notes about a stranger on the spot. Memory is never more treacherous than in the case of the description of a doubtful bird when one appeals to some book of reference, a museum collection or the judgment of others. It is not advisable to attempt extensive "field-notes" at first but *it is essential* to keep a daily, dated list of all identified birds. A blank chart for this purpose is inserted in the back part of the book.

Never *chase* birds. Have patience, stand still a great deal and use your common sense all the time.

Do not make yourself believe that you see a certain bird because it has been reported by others. Do your own looking and listening and do it well.

If you cannot go birding alone take along as few friends as possible because birds are suspicious of human beings in flocks, especially when they move about much.

A pair of field or opera-glasses is a valuable aid, although practice is necessary in learning to adjust them rapidly and to fix them instantly upon the bird. Do not feel obliged to use the glasses when you are near enough to see well without them.

Keep the sun at your back, otherwise colors will deceive you.

Remember that birds do not stay "indoors" on account of rain, clouds or unfavorable weather. Warm spring rains literally fill the parks with feathered travelers who often tarry but a day.

Particular Hints.

For the convenience of those desiring access to more detailed sources of information the scientific name of each bird is placed in parenthesis below its common name, while prefixed to the common name is its number in the official list of the American Ornithologist's Union as revised to date.

Following the hints given about each bird are the names (in **black-faced type**) of any bird or birds for which it might easily be mistaken.

If information is desired as to the probable date of arrival of any bird mentioned, reference should be made to the table on page 65.

The table beginning on page 74 indicates the birds which may be expected in given localities in northeastern United States.

Part 1.

WATER AND SHORE BIRDS.

3. HORNED GREBE. 14 in.

(Colymbus auritus.)

Sooty black, extending in narrow line up *back of neck*; rest of neck, sides and upper breast rich chestnut; glossy white below; head and chin black; buffy "horns" or crests, slanting backward from the eyes; slender black bill, tipped with yellow; eye, red; no tail. WINTER: black parts sooty; brown replaced by white; grayer below; crests and ruff less conspicuous. **Pied-billed Grebe.**

6. PIED-BILLED GREBE. 13½ in.

(Podilymbus podiceps.)

Brownish-black, showing gray on head and neck; belly, dusky white, otherwise brownish below; black throat-patch; a conspicuous black band across bill. WINTER: throat whitish; browner below; no band on bill. **Horned Grebe.**

7. LOON. 33 in.

(Gavia imber.)

Black, showing greenish on head and neck, spotted with square or oval patches of white on back and wings and striped with white in front of wings; white below; two conspicuous white-striped bars across the black neck giving the effect of a *broad black collar*; tail, very short; eye, red; large black bill, long and pointed; dives and sinks like the *Grebes*; note, an eerie, prolonged cry.

51. HERRING GULL. 24 in.

(Larus argentatus.)

White; wings and back, pearly blue-gray; bill mostly yellow; outer wing feathers partly black, marked and *tipped with white*; the closed wing shows black towards the end, marked with a regular line of white spots and tipped with white at the extreme point; looks large and heavy in flight. WINTER: Streaked on head and neck with gray. IMMATURE: Dark, much streaked with brownish; bill darker. **Ring-billed Gull. Kittiwake.**

54. RING-BILLED GULL. 19 in.

(Larus delawarensis.)

Similar to 51, but *smaller*; bill, greenish-yellow, bright at tip, *banded with black around the middle*; wing tipped at extreme point with black; feet greenish-yellow; eyelids ve-r milion-red. **Herring Gull.**

60. BONAPARTE GULL. 13 in.

(Larus philadelphia.)

Back and wings, light pearl-gray; head and throat, dark slate color; back of head, neck, underparts and square tail, white; wings tipped, and *bordered narrowly on the outside edge with black*; feet and legs, red; bill black. WINTER: hood, grayish white. **Common Tern.**

70. COMMON TERN. 15 in.

(Sterna hirundo.)

Pearly gray back and wings, whiter on rump; *top of head, shining black*; pure white on throat; dusky-white below; tail forked, *outer edge darkest*; bill long and red, blackening towards tip, held at right angles to the body in flight; feet reddish. WINTER: front of head and under-parts, white; bill nearly black. **Bonaparte Gull.**

129. AMERICAN MERGANSER. 25 in.

(Mergus americanus.)

Black; rump and tail, ashy; head, throat and upper part of neck, greenish; wing, *largely white*, edged with black and crossed by a black bar; white below, showing salmon tinge in flight; narrow white collar; long red bill tipped with black; eye, red. FEMALE: ashy-gray; *head and neck, brown;* salmon or brownish tinge across upper breast; *throat, white*; wings dark with a white patch; small crest on back of neck; feet orange; eye yellow. **American Golden-eye. Red-breasted Merganser.**

130. RED-BREASTED MERGANSER. 22 in.

(Mergus serrator.)

Long ragged crest; head and neck, black; broad white collar; broad cinnamon band streaked with black across breast, otherwise white below, showing salmon tinge in flight; wing largely white, edged and barred twice with black; eye and bill, red. FEMALE: back and wings dark gray turning to brown on head and neck; much paler on sides of neck and throat; gray across breast; crest small; white wing-patch. **American Merganser.**

131. HOODED MERGANSER. 18 in.

(Lophodytes cucullatus.)

Black, including throat and neck; *large circular crest, white bordered with black*; white below running up in front of the wings in two points; sides brownish, finely lined with black; white wing-patch, crossed by black bar; lengthwise white streaks on end of wings; *short* black bill; eye yellow. FEMALE: grayish-brown; throat white; crest small; sides unmarked. **Buffle-head.**

132. MALLARD. 23 in.

(Anas platyrhynchos.)

Gray-brown head, throat and neck glossy green to blue; *narrow* white collar; breast, rich brown; belly, gray lined with black; tail white, set off by black feathers curling up from either side of black rump; wing-patch purple, bordered on either side with a black and then a white bar. FEMALE: buffy-brown and black; much streaked and speckled; lighter on throat; shows wing-patch as in male.

133. BLACK DUCK. 22 in.

(Anas rubripes.)

Dark brown mottled with rusty, lighter below; wing-bar violet-purple edged with black; throat with few markings; legs brownish; bill greenish-black; *in flight white wing lining shows*; a suspicious pond and swamp duck often active at night; call, "quack". **Female Mallard.**

139. GREEN-WINGED TEAL. 14½ in.

(Nettion carolinensis.)

Gray, sides and shoulders finely lined with black; *white bar in front of wing*; head and throat brown with a broad green stripe from eye to back of head ending in a small tuft; wings, gray-brown with brilliant green and black wing-patch, buff-bordered; breast, pale chestnut speckled with black; buffy patches on sides of tail; white belly. FEMALE: mottled brown; top of head and back of neck dark brown; sides of head and neck buff, finely streaked; throat buff, unmarked; no green on head nor white bar in front of wings; wing-patch as in male but smaller. **Blue-winged Teal.**

140. BLUE-WINGED TEAL. 15 in.

(Querquedula discors.)

Back and underparts thickly mottled brownish and black, lightest below; head slaty with purplish gloss; *crescent-shaped white stripe in front of eye*; *shows blue* on bend of wing, followed by white bar and bright green wing-patch; white patch on sides of tail; bill black. FEMALE: dusky-brown; black on top of head; streaked and whitish on neck and sides of head; throat and about base of bill, *white*; back and underparts mottled and spotted; wing shows blue but no green; no white stripes on head. **Green-winged Teal.**

143. PINTAIL. 27 in.

(Dafila acuta.)

Head and throat brown, darkest on top; long, swan-like neck, black above, finely waved white and dusky on back and sides; *long middle tail-feathers*, black; white below with a conspicuous curved white stripe running up sides of neck to head and ending in a point; bronzy patch on wings. FEMALE: tail shorter but pointed; dusky, everywhere streaked; no white stripe on neck; whitish wing-bars; smaller than male. **Old-squaw.**

144. WOOD DUCK. 18 in.

(Aix sponsa.)

Highly variegated; long, glossy *crest* showing green and purple, marked by two narrow white parallel lines curving from bill and behind eye almost to end of crest; throat white extending irregularly in two stripes, one up behind eye, the other nearly around neck; breast glossy brown spotted with white and set off on either side by a conspicuous white stripe bordered with black; wings highly iridescent, marked by green patch bordered with white. FEMALE: duller, less conspicuously marked; head brownish-gray, slightly crested, greenish; throat and line extending from it around base of bill, with space about eye, white.

146. REDHEAD. 20 in.

(Marila americana.)

Puffy head and *upper* part of neck and throat, bright reddish-brown; breast and upper part of back with rump, *black*; belly white; middle back and *sides* evenly and finely waved black and white, *which shows gray at a distance*. FEMALE: grayish-brown, almost white on throat; head brown; lighter on neck. **Canvas-back.**

148. AMERICAN SCAUP DUCK. 18½ in.

(Marila marila.)

Similar to 149, but greenish on head; sides faintly barred; guttural call; less frequent on fresh water than 149. **Lesser Scaup.**

149. LESSER SCAUP DUCK. 16 in.

(Marila affinis.)

Head, neck and breast black, showing *purple* on head; back black and white, narrowly barred; upper part of wing dark, finely mottled with white; lower part of wing brownish-black with small white patch; lower breast and belly white, *sides barred;* bill, bluish tipped with black. FEMALE: black replaced by brown, lighter on head; white around bill. **Ring-necked Duck.** Female, easily confused with female **Lesser Scaup.**

151. AMERICAN GOLDEN-EYE. 19 in.

(Clangula clangula americana.)

Black, glossed with green; white below, extending around the neck in a collar; head bunchy, slightly crested and marked *below* and just back of eye by a nearly oval *white spot*; wings largely white; short bill. FEMALE: brown, snuff-colored on head; white collar and wing patch; band of bluish-gray across breast and down sides. **American Merganser.**

153. BUFFLE-HEAD. 15 in.

(Charitonetta albeola.)

Head, throat and upper neck, iridescent black; *black crest broadly banded with white over head* from eye to eye; back black, ashy on tail; wings black with large white patch; *collar and entire under parts, white.* FEMALE: smaller; brownish, lighter below; no crest; white patch on cheeks and small white wing-patch. **Hooded Merganser.**

154. OLD-SQUAW. 21 in.

(Harelda hyemalis)

WINTER PLUMAGE: Back, long tail-feathers and breast with *patch on sides of neck* black; throat, upper breast, top of head, neck and belly white; cheeks grayish-brown; wings black and gray; bill crossed by yellowish band. FEMALE: dark brown, lighter on head, grayish on tail; throat, breast and region about the eye gray-white; below white, brown on lower part of throat; no long tail-feathers; smaller than male. SUMMER PLUMAGE: head and neck, dusky black; grayish-white on sides of head; female shows more brown. **Pintail.**

165. WHITE-WINGED SCOTER. 19—20 in.

(Oidemia deglandi.)

Black, brownish below; *patch on wing* and *spot under eye, white* (nearly absent in winter); iris almost white; upper bill, red-orange on sides, *swollen on top*; fly high except in stormy weather. FEMALE: grayish-brown; whitish around upper bill and ears; white wing-patch; iris black. **American and Surf Scoters,**

167. RUDDY DUCK. 15—16 in.

(Erismatura jamaicensis.)

Upper half of head black, cheeks and chin white; elsewhere chestnut-red turning grayish; brown on rump and wings; belly white; tail blackish, *stiff* (often held erect by male while swimming); bill *broad*, short; feet large. WINTER PLUMAGE AND FEMALE: brown, somewhat mottled; *white stripe below eye;* swift, whirring flight; sink without diving or dive and swim below water like the grebes.

172. CANADA GOOSE. 40 in.

(Branta canadensis.)

Head and neck, *black with white throat-patch* extending up to and just behind eye; brownish-gray marked with lighter, darkest on back; rump and tail, black above and white below; fly after a leader in harrow-shaped ranks, often high up, crying "honk, honk, honk."

190. AMERICAN BITTERN. 30 in.

(Botaurus lentiginosus.)

Streaky, tawny and dark-brown, mixed with white and yellowish below; conspicuous black streak on sides of neck; short brown tail; *breast feathers loose and baggy*; yellow eye; call, loud resounding squawk, or booming notes which have given it the common name of "stake-driver."

191. LEAST BITTERN. 13 in.

(Ixobrychus exilis.)

Crown with back, tail and upper half of wings, shining greenish-black; rest of wing, buff and bright chestnut; throat and baggy breast, whitish shading into yellowish-brown on sides of neck and chestnut on back of neck; buffy-white below; tufts of dark feathers on either side of breast; yellow eye. **Green Heron.**

194. GREAT BLUE HERON. 45 in.

(Ardea herodias.)

Slaty-gray; top of head and *throat white*; *long* bill yellow beneath; legs *black*; *bend of wing reddish-brown;* blackish crest; feathers on breast long and streaky; stands on one leg; flies slowly with neck drawn in and legs extended behind; hoarse call. **Cranes.** (Cranes are rare; fly with necks extended; call, loud and resounding.)

201. GREEN HERON. 17 in.

(Butorides virescens.)

Wings and back dark green, latter tinged with blue-gray; crown greenish-black; neck and breast reddish-brown; throat and line down middle of neck to breast whitish, ending in light streaks on breast; the smallest heron; carries neck curved in flight; squawking note, "scow." **Night Heron.**

202. BLACK CROWNED NIGHT HERON. 24 in.

(Nycticorax nycticorax naevius.)

Green-black above; *sides of head*, throat and lower parts white; *ashy on lower half of wing* and tail; *neck short and thick*; pointed black bill; legs yellow; nests in flocks; feeds by night except in nesting season; call, "quawk." IMMATURE: brown, much streaked and mottled; appear slightly larger than adult. **Little Green Heron.**

212. VIRGINIA RAIL. 9½ in.

(Rallus virginianus.)

Streaked, blackish and olive-brown; back of neck and top of head plain brown; elsewhere *cinnamon-red* except *flanks* which are *heavily barred cross-wise*; long feet; short upturned tail; in fresh or salt marshes; grunting and guttural calls; one note of female much like sharp "click" of the Flicker. **King Rail. Clapper Rail.**

214. SORA. 8½ in.

(Porzana carolina.)

Olive-brown with lengthwise markings of black and some white; short tail turned up, showing buffy white underside; sides *barred* posteriorly with white; *front of head and throat black*; slaty line over eye; sides of neck and breast grayish-slate; bill *short and yellowish*; legs long; very stealthy; skulks and crouches in grass. YOUNG: no black; throat whitish, brown on breast. **Virginia Rail.**

219. FLORIDA GALLINULE. 13½ in.

(Gallinula galeata.)

Bluish-slate, washed with olive-brown on back, rump, wings and tail; grayish on belly with *white streaks along flanks*; under tail-coverts *white*; brilliant *red bill* and *plate* across forehead; legs green to red; call, "chuck" or clucking notes; walks and *swims*. **American Coot.**

221. AMERICAN COOT. 15 in.

(Fulica americana.)

Smooth blackish slate color, lighter below, black on head and neck; white bill shows *dark marks near the tip*; turned up tail; white underneath; wing edged with white; eye red; young show white below and no marks on bill; toes with scalloped edges. May be mistaken for a small duck. **Florida Gallinule.**

228. AMERICAN WOODCOCK. 10½ in.

(Philohela minor.)

Back, mixed black and rusty slate; below reddish-brown, no markings; *large* head with short neck and *very long straight bill*; eye set *high up and far back*; crown *barred crosswise* with black and rusty; short tail; burrows in soft mud for earthworms; nocturnal. **Wilson Snipe.**

230. WILSON SNIPE. 10½—11½ in.

(Gallinago delicata.)

Black and buff, much streaked; wings, dark brown marked with white; below white, streaked; sides and *lining of wings barred with black*; throat white; rusty tinge on breast and black-barred tail; *long, probing bill*; usually in fresh-water marshes or open swamps; *flight swift and crooked*; varied notes; call, harsh "scaipe"; makes a "bleating" sound (not vocal.) **Woodcock.**

239. PECTORAL SANDPIPER. 9 in.

(Pisobia maculata.)

Black mottled with rusty; white below, thickly streaked on breast; upper side of tail black, middle tail-feathers long and pointed; wet meadows; harsh creaky, whistling note; mating call musical, repeated eight times by male with throat greatly inflated. **Wilson Snipe. White-rumped Sandpiper.**

242. LEAST SANDPIPER. 5½—6 in.

(Pisobia minutilla.)

Blackish edged with reddish brown; light line over eye; shows whitish wing-bar; outer tail-feathers ash-gray; below white, finely streaked across breast; call sweet, "peep-peep"; in flocks along fresh and salt water; the *smallest* sandpiper. **Semipalmated Sandpiper.**

246. SEMIPALMATED SANDPIPER. 6 in.

(Ereunetes pusillus.)

Grayish-brown, marked with black and buffy; rump very dark; tail tapering; underparts *pure white*, slightly tinged and streaked across breast; white line over eye and dusky line beneath; note "peep-peep". **Other Sandpipers.**

248. SANDERLING. 8 in.

(Calidris leucophaea.)

SUMMER: mottled black, white and *rusty*; *white wing-bar*; below white, marked with black and tinged with *rusty* on throat and upper breast; *lacks the hind toe*; feet and bill black. WINTER: Grayish above, pure white below; call, a shrill whistle; mostly frequents beaches along the coast; runs rapidly, at times lifting its wings as if about to fly. **Spotted Sandpiper.**

254. GREATER YELLOW-LEGS. 15—16 in.

(Totanus melanoleucus.)

Black, much speckled with white; *head*, *neck* and *lower parts* white, streaked and marked with black except on middle of belly; bill *long*, *black*; *legs* and *feet yellow*; tail shows white barred with black; utters whistling call frequently; found near fresh and salt water. **Yellow-legs. Bartramian Sandpiper.**

255. YELLOW-LEGS. 11 in.

(Totanus flavipes.)

Similar in plumage and habits to 254, but *smaller* and more common; in flocks; most abundant in fall migration; call, three whistling notes resembling that of 254. **Greater Yellow-legs.**

256. SOLITARY SANDPIPER. 8½ in.

(Helodromas solitarius.)

Back, dusky olive-brown *finely spotted with white*, crown and back of neck showing dark streaks; white below, throat unmarked; sides of head and neck with breast slightly buffy and *distinctly streaked*; sides lightly barred; wings dark brown with one narrow white wing-bar; outer tail-feathers *white barred with black*; note, a soft whistle; frequents fresh water mostly. **Spotted Sandpiper.**

261. BARTRAMIAN SANDPIPER. 12 in.

(Bartramia longicauda.)

Black edged *regularly* with *buff*; neck *slender, buff, finely streaked*; tail *barred* with black; outer wing-feathers show *white* barring; below pale buff with arrow-marks of black; belly lighter with few markings; flute-like call or soft, mournful note; walks slowly, *nodding* head; flies high; when alighting *raises wings to full height before* folding them; grassy plains and pastures. **Golden Plover.**

263. SPOTTED SANDPIPER. 7½ in.

(Actitis macularia)

Greenish-ash marked lightly with black; *long white line over eye*; pure white below, *adults with dark round spots*; wings brownish, marked broadly with white bar; flies close to the water, wings full-spread, showing white bar; note, penetrating "pee-weet, weet"; walks with tilting motion. **Solitary Sandpiper.**

272. AMERICAN GOLDEN PLOVER. 10½ in.

(Charadrius dominicus.)

SUMMER: black, mottled with yellow; sides of breast white, otherwise black below; *forehead and line over eye, white*; below eye, *black*; lining of *wings ashy*. WINTER: whitish below. Plains and sandy hills or fields; runs swiftly; melodious whistle; in flocks. **Black-bellied Plover.**

273. KILLDEER. 10 in.

(Oxyechus vociferus.)

Gray-brown; rump rusty-brown; tail rather long; white below; white collar followed by a black collar; *black band across breast*; forehead, line over eye and wing-bar white; bill black; runs very swiftly; note, loud and persistent "killdee," often heard high overhead; found mostly inland.

274. SEMI-PALMATED PLOVER. 6¾ in.

(Aegialitis semipalmata.)

Forehead, throat and *collar around neck white, followed by a black collar* broadening across breast; below white; gray-brown above; in small scattering flocks along beaches or water-courses; call, very sweet, two or three notes, ascending; rather silent but not shy. **Piping Plover.**

Part 11.

LAND BIRDS.

289. BOB-WHITE. 10 in.

(Colinus virginianus.)

MALE: reddish-chestnut, much variegated with black and buff; tail ashy; *throat and line over eye white*; forehead, line below eye and band across breast, black; belly white, finely barred with wavy black lines; spring call of male, "bob-white"; varied notes; in flocks except during breeding season; *highly beneficial.* FEMALE: white markings buffy, little black on breast.

300. RUFFED GROUSE. 17 in.

(Bonasa umbellus.)

Black and reddish-buff, *much barred*; below barred with grayish-white; tail mottled showing broad black bar; *black feather-tufts* on side of neck (longest on male) which form a ruff; woodland and shrubby pastures; *call* of male, a remarkable whirring of the wings described as "*drumming;*" call of female "cluck" or a note of distress when young are disturbed. **Canada Grouse. Prairie Hen.**

316. MOURNING DOVE. 12 in.

(Zenaidura macroura carolinensis.)

Gray-blue, tinged with brownish; tail broadly tipped with white, *tapering to a narrow point*; sides of neck iridescent; marked with black on wings and sides of head; rapid whistling flight; note, "coo-oo." **Pigeon. Cuckoos.**

331. MARSH HAWK. 22 in.

(Circus hudsonius.)

Bluish-gray, showing light streaks; gray below, belly white marked with brown; tail barred; *white rump;* (female brown, barred and streaked more heavily); note shrill.

332. SHARP-SHINNED HAWK. 12 in.

(Accipiter velox.)

Slate-gray, crown darker; edge of wing barred with black; *tail long, square,* barred broadly, white-tipped; below white slightly tinged with brown, streaked or faintly barred; *usually silent* except at nesting period; soars in narrow circles; flies swiftly; attacks poultry. **Cooper Hawk.**

333. COOPER HAWK. 17 in.

(Accipiter cooperi.)

Resembles closely 332, but is *larger,* crown almost black; tail *rounded* and showing more white at tip; flies *swiftly;* attacks poultry; cackling note. **Sharp-shinned, Red-shouldered and Red-tailed Hawks.**

337. RED-TAILED HAWK. 19—22 in.

(Buteo borealis.)

Much like 339 above but without shoulder-patch; *tail rich, red-brown,* barred *once* with black (more or less completely barred in female and immature); below white; upper breast and throat streaked (*adults show red-brown tinge* on sides); call, a squealing whistle; woodland; beneficial. **Red-shouldered and Broad-winged Hawks.**

339. RED-SHOULDERED HAWK. 18—20 in.

(Buteo lineatus.)

Dark brown varied with reddish-brown, buffy or grayish; edge of wing barred black and white, showing *four notches* in *flight;* red-brown shoulder-patch; tail blackish, barred and tipped with white; below reddish-buff, *barred* with whitish; (immature *streaked* below or *heavily spotted*; shoulder-patch less showy); note, "kee-you"; beneficial, although commonly known as a hen-hawk. **Red-tailed and Broad-winged Hawks.**

343. BROADWINGED HAWK. 14 - 18 in.

(Buteo platypterus.)

Dark brown, slightly mottled with reddish-buff; tail, broadly barred; *edge of wing shows three notches in flight*; below white, *thickly barred with reddish-brown* and finely lined with blackish; heavy *flight*; notes, high pitched (one resembles that of the Wood Pewee). **Red-shouldered and and Red-tailed Hawks.**

352. BALD EAGLE. 33 in.

(Haliaetus leucocephalus.)

Dark brown, *tail, head and neck white*; yellow bill; edge of wing black; (immature resembles Golden Eagle; adult plumage appears the third year); usually near water; eats fish, carrion, and at times water-birds and mammals; call-notes harsh. **Fish Hawk. Golden Eagle.**

360. AMERICAN SPARROW HAWK. 10½ in.

(Falco sparverius.)

Reddish-brown, usually barred or spotted with black; head bluish, *marked on sides with black*; tail white-tipped with one broad black bar; below white, more or less spotted; narrow pointed wings. FEMALE: much more barred, darker and *streaked* below. *The smallest hawk.*

364. AMERICAN OSPREY. 23 in.

(Pandion haliaetus carolinensis.)

Brown-black, feathers slightly tipped with whitish; *head mottled* with white; *white below*, sometimes faintly spotted; in flight shows dark above, head and lower parts white; nests in colonies along coast; fish-eating; dives for prey; call, a high wailing whistle. **Bald Eagle.**

336. AMERICAN LONG-EARED OWL. 14½ in.

(Asio wilsonianus.)

Very dark brown, lightly mottled with yellowish and white; wings and tail barred; below, streaked on breast, thickly mottled and barred elsewhere; *long, blackish ear-tufts* with light edges; yellow eyes; barking, whirring call; wooded swamp land; beneficial. **Short-eared Owl. Barred Owl.**

367. SHORT-EARED OWL. 14½—15½ in.

(Asio flammeus.)

Streaked and mottled dark brown with yellowish; tail broadly barred, also edge of wing; yellowish-white below streaked heavily across breast but *without bars*; *ear-tufts very short*; eyes yellow; grassy marshes and rank undergrowth; sometimes feeds by day in cloudy weather; call shrill; beneficial. **Long-eared Owl. Barred Owl.**

368. BARRED OWL. 18—20 in.

(Strix varia.)

Conspicuously and regularly barred (more finely on head) brown and white with slight yellowish tinge; below white *barred* across breast, *streaked broadly* on belly; *no ear-tufts*; bill *yellow*; eyes almost *black*; woodland; call, a resonant hoot; beneficial. **Short-eared Owl.**

372. SAW-WHET OWL. 7½—8 in.

(Glaux acadica.)

Dark chocolate brown, finely lined on head, spotted on back; tail slightly barred *with white*; below white, thickly streaked; eyes *yellow*; bill black; *no ear-tufts*; the smallest owl common to northeastern America; call resembles "filing a saw"; flies like a woodcock; thickly wooded areas; beneficial. **Screech Owl.**

373. SCREECH OWL. 8—10 in.

(Otus asio.)

Gray to reddish-brown, streaked with black and somewhat mottled; below white, streaked and irregularly *barred*; *ear-tufts*; call, *eerie, wailing tremolo*; frequents orchards; beneficial. **Saw-whet Owl.**

375. GREAT-HORNED OWL. 22 in.

(Bubo virginianus.)

Mottled buff, black and yellow; *long ear-tufts*; eyes *yellow*; below finely barred, *patch on throat white*; wild forested country; very loud, varied calls, "whoo", a scream or bark; attacks poultry and smaller birds but also destroys many mice and rabbits.

387. YELLOW-BILLED CUCKOO. 12¼ in.

(Coccyzus americanus.)

Bronzy olive-gray; white below; *lower half of curved bill yellow* tipped with black; outer tail-feathers black tipped *broadly* with white; wings show a *reddish-brown tinge in flight*; glides stealthily from tree to tree and keeps concealed among the leaves; slowly droops and raises tail when perching; song, loud "kuk-kuk, kuk-kuk". **Black-billed Cuckoo. Mourning Dove.**

388. BLACK-BILLED CUCKOO. 12 in.

(Coccyzus erythrophthalmus.)

Bronzy olive-gray; white below; bill *entirely* black; *only a little white* on tail; movements like those of 387; song, soft "coo-coo, coo-coo". **Yellow-billed Cuckoo. Mourning Dove.**

390. BELTED KINGFISHER. 14 in.

(Ceryle alcyon.)

Blue-gray; white collar; *big, crested head*; sits erect watching for fish and flies near the surface of the water, uttering a *rattling* call.

393. HAIRY WOODPECKER. 9 in.

(Dryobates villosus.)

White band down the middle of black back; wings black spotted with white; beneath white; outer tail-feathers white *not barred*; red band on neck of male; large bill; note, sharp resonant "plick". **Downy Woodpecker. Yellow-bellied Sapsucker.**

394c. DOWNY WOODPECKER. 6¼ in.

(Dryobates pubescens medianus.)

Bill small; closely resembles the *Hairy Woodpecker* but is *scarcely larger* than the *English Sparrow* and has outer tail-feathers *barred with black*. **Hairy Woodpecker. Yellow-bellied Sapsucker.**

402. YELLOW-BELLIED SAPSUCKER. 8¼ in.

(Sphyrapicus varius.)

Mixed black and white; *yellowish-white underneath*, streaked on sides; white bar *lengthwise* the wing; scarlet patch, bordered with black on crown *and throat* (throat of female white); harsh, squealing note. **Downy Woodpecker. Hairy Woodpecker.**

406. RED-HEADED WOODPECKER. 9½ in.

(Melanerpes erythrocephalus.)

Black and white, not streaked; *entire head, neck and upper part of breast crimson*; pure white belly; note, a loud "kr-r-r-r-r". **Red-bellied Woodpecker.**

409. RED-BELLIED WOODPECKER. 9½ in.

(Centurus carolinus.)

Black and white, back, wings and tail *barred transversely* and very evenly; below grayish-white, *tinged with red*; top of head and back of neck crimson. FEMALE: crown gray. **Red-headed Woodpecker. Hairy Woodpecker.**

412a. NORTHERN FLICKER. 12½ in.

(Colaptes auratus luteus.)

Brown, barred with black; head grayish; back of neck marked with bright red; black crescent on cinnamon-brown spotted breast; in flight shows *white rump* and yellow lining of wings and tail; feeds much *on ground*, unlike other woodpeckers; sharp, nasal call-note; mating call, "flee-ker", repeated. **Meadowlark.**

417. WHIP-POOR-WILL. 9¾ in.

(Antrostomus vociferus.)

Mottled, strongly resembling the bark of certain trees; narrow white band across upper part of breast; big head; in daytime lies *motionless, lengthwise a branch*. **Nighthawk.**

420. NIGHTHAWK. 9½ in.

(Chordeiles virginianus.)

On the wing overhead after insects just before or at dusk; long, pointed wings *show a white patch*; flight resembles that of *Chimney Swift*; sharp note, "skeep"; often nests on the flat roofs of city buildings. **Whip-poor-will.**

423. CHIMNEY SWIFT. 5¼ in.

(Chætura pelagica.)

Dark sooty-gray; *bob-tail*; long, pointed wings which often vibrate rapidly in flight; twittering note; never seen perching like other birds. **Swallows.**

428. RUBY-THROATED HUMMING-BIRD. 3¼ in.

(Trochilus colubris.)

Iridescent green and purple; throat of male ruby-red; frequents flowering shrubs and plants; darts here and there and poises in mid air with wings vibrating so rapidly that they make a humming noise; "squeaky note".

444. KINGBIRD. 8½ in.

(Tyrannus tyrannus.)

Dusky black; below white; *tail tipped with broad band of white*; fire-red patch on crown, usually concealed; spreads tail when about to alight; when flying high, may be mistaken for a **Tree Swallow.**

452. CRESTED FLYCATCHER. 9 in.

(Myiarchus crinitus.)

Olive, showing rusty brown on wings and tail; *crested head*; throat and breast, ashy-gray; wing-bars; belly sulphur-yellow; usually perches high; note, hoarse whistle. **Blue Jay.**

456. PHŒBE. 7 in.

(Sayornis phœbe.)

Dull olive-brown, darker on head and tail; whitish below; *bill* and feet black; tail drooping but jerking constantly; note, "phœ-be." **Wood Pewee. Least Flycatcher.**

459. OLIVE-SIDED FLYCATCHER. 7½ in.

(Nuttallornis borealis.)

Olive-gray, wings and tail darker; throat and a narrow line along middle of belly *white*; *large, flattened* head; bill *heavy*, black above, light below; *long wings*; tail *notched*; whitish tufts on flanks; bold, conspicuous; plaintive call or loud whistle. **Crested Flycatcher.**

461. WOOD PEWEE. 6¼ in.

(Myiochanes virens.)

Dark olive-brown, brownish-black on wings and tail; frowzy head; below white, olive tinge on sides; two narrow white wing-bars; plaintive note repeated slowly and often, "pee-to-way, pee-to-way, hee-rue." **Phœbe. Least Flycatcher.**

463. YELLOW-BELLIED FLYCATCHER. 5½ in.

(Empidonax flaviventris.)

Bright olive-green, tail and wings dark brown; yellowish wing-bars; sulphur-yellow below, *brightest between legs*; tinged elsewhere with pale olive; yellow eye-ring; call, a soft, slow whistle, "pee-a." **Yellow-throated Vireo. Least Flycatcher. Pine Warbler.**

465. GREEN-CRESTED FLYCATCHER. 5¾ in.

(Empidonax virescens.)

Olive-green, wings and tail dark; two *showy* wing-bars; head *broad*; below white, pure on throat and middle of belly, elsewhere palely tinged with greenish-yellow; (immature brighter); open woods near water; common notes, "cheep" or a two-syllabled squeak resembling that made by a rubber doll. **Traill, Least and Yellow-bellied Flycatchers.**

466. TRAILL FLYCATCHER. 5½—6 in.

(Empidonax traillii.)

Olive-green, *tinged with brown*; whitish below, sides grayish; belly slightly yellow; throat *white*; dull, *narrow* wing-bars; pale *eye-ring*; bill, black above, light below; prefers alder growth; a short, soft note, also a longer, sharp, rasping call, accented on second syllable. **Acadian Flycatcher. Least Flycatcher.**

467. LEAST FLYCATCHER. 5¼ in.

(Empidonax minimus.)

Olive-gray, wings, tail and head darker; two narrow wing-bars; *grayish below*, whiter on throat; *jerks its tail* and utters a sharp, energetic call, "che-bec." **Wood Pewee. Phoebe.**

474. HORNED LARK. 7¾ in.

(Otocoris alpestris.)

Streaked grayish-brown, somewhat *tinged* with *chocolate*; line *over eye* and *throat yellow* (paler in summer); *breast-patch* and line from bill to and *below eye black*; feathers on sides of crown long, *black*, erectile; tail black, *white-edged*; ground feeder; *runs*; whistling call; in flocks. **Vesper Sparrow. Pipit. Prairie Horned Lark.**

476b. PRAIRIE HORNED LARK. 7¼ in.

(Otocoris alpestris praticola.)

Similar to 474 but smaller; yellow markings almost white; formerly confined to prairies, now spreading eastward. **Horned Lark. Vesper Sparrow. Pipit.**

477. BLUE-JAY. 11½ in.

(Cyanocitta cristata.)

Narrow black collar; *crested*; wings and tail deep blue, white-tipped and black-barred; bold; harsh, noisy notes. **Loggerhead Shrike. Kingfisher. Bluebird.**

488. AMERICAN CROW. 19 in.

(Corvus brachyrhynchos.)

Entirely black, including bill and feet; often seen in flocks; wings appear *frayed* and *ragged in flight*; note, a lusty "caw." **Bronzed Grackle.**

490. FISH CROW. 16 in.

(Corvus ossifragus.)

Most easily distinguished from the common crow by smaller size and *very nasal note*, "car-car-car;" found on the Atlantic coast northward to Connecticut. **Crow.**

494. BOBOLINK. 7½ in.

(Dolichonyx orizivorus.)

Black with light back, creamy buff on neck; long merry musical song; open fields; sings on the wing; FEMALE: sparrow-colored, streaked above.

495. COWBIRD. 8 in.

(Molothrus ater.)

Black, head and neck glossy brown; *sparrow-like bill*; fly in flocks, uttering a greasy, squeaking note. FEMALE: brownish. **Bronzed Grackle. Rusty Blackbird.**

497. YELLOW-HEADED BLACKBIRD. 10¼ in.

(Xanthocephalus xanthocephalus.)

Black; head, throat and breast *yellow*; white wing patch. FEMALE: dark brown, yellow markings duller; no wing patch; smaller than male.

498. RED-WINGED BLACKBIRD. 9¼ in.

(Agelaius phœniceus.)

Black showing scarlet shoulder-straps edged with yellow. Likes marshy places; notes "quonk-a-ree," metallic whistle and chattering. FEMALE: much streaked, marked with rusty. **Cowbird. Rusty Blackbird.**

501. MEADOWLARK. 10½ in.

(Sturnella magna.)

Streaked; black crescent on a *bright yellow* breast; *outer tail feathers white*; flies straight, *hovering* as it reaches the ground; sweet, plaintive song; nasal call-note. **Flicker. Dickcissel.**

506. ORCHARD ORIOLE. 7 in.

(Icterus spurius.)

Rich *chestnut-brown*, head, wings and tail black; narrow white wing-bar; high trees; loud, clear song. FEMALE: olivaceous above, greenish-yellow below with two white wing-bars; young male like female but with black throat. **Baltimore Oriole.**

507. BALTIMORE ORIOLE. 7½ in..

(Icterus galbula.)

Bright orange, head, throat, back and wings black; two white wing-bars; loud call, "co-weet, co-weet, co-weet;" song noteworthy. FEMALE: smaller, brownish-yellow showing little black. **Orchard Oriole. Scarlet Tanager.**

509. RUSTY BLACKBIRD. 9½ in.

(Euphagus carolinus.)

Black, uniformly iridescent and more or less rusty; tail nearly even. FEMALE: smaller and rustier with pale line over eye. **Bronzed Grackle. Red-wing Blackbird.**

511. PURPLE GRACKLE. 13 in.

(Quiscalus quiscula.)

Back purple to greenish otherwise similar to 511b except that feathers *on back, belly and rump show iridescent bars.* **Bronzed Grackle. Rusty Grackle. Crow.**

511b. BRONZED GRACKLE. 13 in.

(Quiscalus quiscula æneus.)

Iridescent black; head steely blue-green or purple; *body* distinctly bronzy; tail carried rudderwise in flight; pompous walk; rusty, grating call. **Crow.**

517. PURPLE FINCH. 6¼ in.

(Carpodacus purpureus.)

Not "purple," but faded crimson-red, somewhat streaky; belly whitish; *large, heavy bill*; noteworthy song. FEMALE: mottled olive-brown, *resembling sparrows.*

521. AMERICAN CROSSBILL. 6 in.

(Loxia curvirostra minor.)

Male brickish to bright-red, wings and tail dark brown; *bill crossed* and *curved at tip*; feeds on seeds of cone-bearing trees; movements *sluggish* and *parrot-like*; flight, undulating; go in small flocks, singing on the wing. FEMALE: dull olive-green; yellowish rump; belly whitish. **White-winged Crossbill.**

528. REDPOLL. 5½ in.

(Acanthis linaria.)

Streaked dark brown and white; belly, also bars and edges of wing white; sides streaked; *rump*, crown, *throat, breast* and sides suffused with rosy-red; blackish throat-patch; bill sharply pointed; canary-like song; in flocks about weedy patches. FEMALE: shows red only on crown; no throat-patch. **Purple Finch. Pine Siskin. Tree Sparrows.**

529. AMERICAN GOLDFINCH. 5¼ in.

(Astragalinus tristis).

Canary-yellow, crown, tail and wings black; white wing-bars; canary-like song; also sings in its undulating flight, "per-*chic*-o-ree, per-*chic*-o-ree"; in flocks. FEMALE: olive-tinged, without pure black or yellow. **Yellow Warbler.**

533. PINE SISKIN. 5 in.

(Spinus pinus.)

Black and *buffy-olive, much streaked*; below whitish, streaked; *tail notched*; *slender, pointed bill*; wing and tail-feathers dark-brownish showing *yellow* edges; whitish wing-bars; prefers evergreen or in spring, budding trees; pleasing song. **Redpoll. Female Goldfinch.**

534. SNOWFLAKE. 7 in.

(Plectrophenax nivalis.)

SUMMER PLUMAGE: male, *white*, back, part of wing and inner tail-feathers *black*; female, entirely streaked with black above, showing rusty tinge on wings. WINTER PLUMAGE: similar but male streaked with black on back, showing rusty brown tinge; a ground-feeder; *walker*; goes in flocks; song, sweet and rapid. **Horned Lark. Lapland Longspur.**

540. VESPER SPARROW. 6¼ in.

(Pœcetes gramineus.)

Streaked above and below; underparts whitish, tinged with buff across breast and on sides; shows *two conspicuous white tail feathers in flight*; noteworthy song. **Female Purple Finch.**

542a. SAVANNA SPARROW. 5¼ in.

(Passerculus sandwichensis savanna.)

Much streaked above and below; line over eye and edge of wing, yellowish; cheek sometimes suffused with yellow tinge; *tail short*, feathers pointed; movements stealthy; song, a weak trill. **Henslow Sparrow.**

546. GRASSHOPPER SPARROW. 5¼ in.

(Coturniculus savannarum australis.)

Crown black, divided and bordered by buff lines; back broadly, neck finely streaked, black, buff and gray; *tail even, feathers pointed*; below *bright buff*; belly whitish; before eye orange-buff; edge of wing yellow; weak, grasshopper-like song, "chir-r-r-r"; old fences about dry pastures; skulking, mouse-like; flies low and not far. **Savanna and Henslow Sparrows.**

547. HENSLOW SPARROW. 5 in.

(Cotvrniculus henslowii.)

Back conspicuously marked and streaked, showing much chestnut; head and neck a peculiar greenish tinge, *finely* lined with black; below tinged with buff and finely streaked; dark stripes and spots on sides of head; *sharp tail*; hides in the grass and can be carefully observed only with patience. **Grasshopper Sparrow.**

554. WHITE-CROWNED SPARROW. 7 in.

(Zonotrichia leucophrys.)

Ashy-gray; rump, tail and wings brown streaked with black; *crown conspicuously striped* with black and white; no yellow; two white wing-bars; in flocks, often with *White-throated Sparrows*; scratches with both feet; song notable. **White-throated Sparrow.**

558. WHITE-THROATED SPARROW. 7 in.

(Zonotrichia albicollis.)

White throat and wing-bars; unmarked ashy breast; whitish on belly; crown striped with black and white; broad white stripe over the eye shading to yellow in front; yellow and white markings obscure; in flocks about shrubbery; clear, sweet whistle, "pee-bod-dee-dee-dee." IMMATURE: **White-crowned Sparrow.**

559. TREE SPARROW. 6¼ in.

(Spizella monticola.)

Streaked, showing much grayish; two *showy white wing-bars*; chestnut-brown cap; breast whitish, *shading to a dark spot in the middle*; in flocks, often with *Juncos*; a winter visitor; pleasing song. **Chipping Sparrow. Field Sparrow.**

560. CHIPPING SPARROW. 5¾ in.

(Spizella passerina.)

Streaked; *plain ashy breast*; two narrow white wing-bars; *chestnut-brown cap*; whitish line over eye; song, a strong clear trill. **Field Sparrow. Tree Sparrow.**

563. FIELD SPARROW. 5¾ in.

(Spizella pusilla.)

Streaked; crown and *bill* reddish-brown; neck ashy; brownish-white *unspotted* breast; two indistinct white wing-bars; song, "fe-u, fe-u, fu, fee, fee, fee," beginning slowly and ending almost in a trill. **Chipping Sparrow. Tree Sparrow.**

567 SLATE-COLORED JUNCO 6¼ in.

(Junco hyemalis.)

Slate color; blackish bib (female brownish) over a white belly; *ivory bill; two white tail feathers*; feeds in flocks on ground, often in company with other birds; "sucks its teeth" for a call-note; song, a melodious trill.

581. SONG SPARROW. 6½ in.

(Melospiza melodia.)

Reddish-brown, showing black streaks; *ashy* line over eye; whitish below with dark brown streaks which form a *spot in the middle of the breast*; cheery song, varied. **Swamp Sparrow. Lincoln Sparrow.**

583. LINCOLN SPARROW. 5¾ in.

(Melospiza lincolni.)

Finely streaked with black and brown; white beneath, with *broad buff band* across the breast and down the sides; narrow streaks on throat, upper breast and sides; dark stripe on each side of throat from corner of mouth; very shy. **Song and Swamp Sparrows.**

584. SWAMP SPARROW. 5¾ in.

(Melospiza georgiana.)

Very darkly colored and heavily streaked; chestnut cap, sometimes indistinctly streaked; *black forehead*; plain ashy breast; shy; frequents bushes along the water's edge. **Song Sparrow. Lincoln Sparrow.**

585. FOX SPARROW. 7½ in.

(Passarella iliaca.)

Fox-red back and tail; ashy about neck and head; white breast *thickly* streaked with dark spots; scratches like a hen; alert; noteworthy song. **Brown Thrasher. Hermit Thrush.**

587. TOWHEE. 8¾ in.

(Pipilo erythrophthalmus.)

Black above and black bib (female rich brown); reddish-brown sides; white underneath; *outer tail-feathers white*; scratches about under bushes; brilliant notes, "tow-hee" and "che-wink." **Robin.**

593. CARDINAL. 8½ in.

(Cardinalis cardinalis.)

Bright red, including large blunt bill; *crested*; black markings on face and throat; fine songster. FEMALE: olive-gray, tinged lightly with red and obscurely marked. **Tanagers.**

595. ROSE-BREASTED GROSBEAK. 8¼ in.

(Zamelodia ludoviciana.)

Black, including throat; white rump and wing-patches; *breast white with a brilliant rose-red blotch*; lining of wings also rose-red; *large beak*; sluggish; song, a rich carol. FEMALE: yellowish-brown darkly mottled; no red.

598. INDIGO BUNTING. 5¾ in.

(Passerina cyanea.)

Indigo blue, wings and tail blackish; in flocks; often feeds in the grass; noteworthy song. FEMALE: brown. **Bluebird.**

604. DICKCISSEL. 6 in.

(Spiza americana.)

Streaked; ashy on head and neck; white chin; *black throat-patch*; *yellow breast*; white belly; *line over eye*, *yellow*; wings show chestnut-brown. FEMALE: less yellow; no throat-patch. **Yellow-breasted Chat. Meadowlark.**

608. SCARLET TANAGER. 7¼ in.

(Piranga erythromelas.)

Scarlet; black wings and tail; rather sluggish; note, "chip, chree;" song resembles that of robin. FEMALE: olive-green; usually near by. **Cardinal. Summer Tanager.**

610. SUMMER TANAGER. 7½ in.

(Piranga rubra.)

Vermilion all over; no black. FEMALE: yellowish-olive; usually near the male. **Cardinal.**

611. PURPLE MARTIN. 7½ in.

(Progne subis.)

Blue-black all over; often nests in bird houses; twittering song. FEMALE: lighter, streaked with grayish-white below. **Tree Swallow. Chimney Swift.**

612. CLIFF SWALLOW. 6 in.

(Petrochelidon lunifrons.)

Steel-blue back and crown; *rump*, throat and sides of head *chestnut*; *forehead whitish*; belly white, breast brown-gray marked by steel-blue patch; *tail square*; in flocks; nests in eaves of buildings or under cliffs; twittering call. **Barn and Tree Swallows.**

613. BARN SWALLOW. 7 in.

(Hirundo erythrogaster.)

Steel-blue; chestnut shading to white below; forehead chestnut; *deeply forked tail.* IMMATURE: tail shorter; colors duller. **Cliff Swallow.**

614. TREE SWALLOW. 6¼ in.

(Iridoprocne bicolor.)

Metallic blue-green; *shining white below*; tail appears nearly square in flight; often seen skimming near the surface of still water. **Barn Swallow. Purple Martin.**

616. BANK SWALLOW. 5¼ in.

(Riparia riparia.)

White throat and *belly*; *brownish band across breast*, otherwise dull brown-gray; tail notched; nests in holes near top of soft banks (usually sand); twittering call; in flocks. **Rough-winged Swallow. Swift.**

619. CEDAR WAXWING. 7 in.

(Bombycilla cedrorum.)

Smooth snuff-brown; *crested*; chin and line from bill to crest, black; end of tail banded with yellow; in small flocks; "monotonous lisping note."

621. NORTHERN SHRIKE. 10½ in.

(Lanius borealis.)

Gray, very light above eyes and on forehead; below hoary; breast, throat and sides show dusky, *wavy*, *cross-wise bars*; line from bill to eye, continued broadly *below eye* back to nape, *black;* wings and tail black, mostly white-tipped, former marked by white patch; *hooked bill*; straight even flight; seeks commanding perch; song, strong, varied, sometimes mimetic. **Loggerhead Shrike. Blue Jay.**

622. LOGGERHEAD SHRIKE. 9 in.

(Lanius ludovicianus.)

Slaty-gray; commonly white beneath, *unmarked*; wings and tail black, marked with white; *hooked* bill; bar through eye and *between forehead and bill*, black; imitates notes of other birds. **Blue Jay. Catbird.**

624. RED-EYED VIREO. 6 in.

(Vireosylva olivaceus.)

Olive-green; crown slaty; white below, lightly tinged on sides; *dark line above a white one over eye*; clear, persistent song. **Warbling Vireo.**

627. WARBLING VIREO. 5¼ in.

(Vireosylva gilva.)

Mouse-gray; olive rump; white below tinged with greenish yellow; creamy-white around eye; song, rippling warble. **Red-eyed Vireo. Least Flycatcher.**

628. YELLOW-THROATED VIREO. 5½ in.

(Lanivireo flavifrons.)

Bright olive-green shading to ashy-blue on rump; *yellow throat* and breast sharply defined against white belly; line around eye and to bill, yellow; *two white wing-bars*; slow, distinct song. **Yellow-bellied Flycatcher. Blue-headed Vireo.**

629. BLUE-HEADED VIREO. 5½ in.

(Lanivireo solitarius.)

Olive-green; *ashy-blue head*; pure white below; sides yellowish; line around eye and to bill, white; *two white wing-bars*; song, noteworthy. **Yellow-throated Vireo.**

631. WHITE-EYED VIREO. 5½ in.

(Vireo griseus.)

Rich olive-green; *two broad yellowish-white wing-bars*; below white, *sides* and *lower belly bright yellow*; white iris; *line from bill to and around eye* yellow; thickets and roadside undergrowth; emphatic call, "whip-tee-you ;" mimics notes of other birds. **Yellow-throated and Blue-headed Vireos.**

636. BLACK AND WHITE CREEPER. 5¼ in.

(Mniotilta varia.)

Black and white, *striped*; white belly (female less streaked below); creeps up and down trees like the *Nuthatches*; song rapid, rasping, "he-ho, he-ho, he-ho." **Blackpoll Warbler.**

637. PROTHONOTARY WARBLER. 5¼ in.

(Prothonotaria citrea.)

Entire head, neck and breast, *bright orange-yellow*; blue-gray wings, rump and tail; prefers willows near water; strong, ringing song. FEMALE: duller. **Blackburnian Warbler. Summer Warbler.**

641. BLUE-WINGED WARBLER. 4¾ in.

(Helminthophila pinus.)

Bright olive-green; tail and wings ashy-blue, the latter with two *white* bars; *top* of *head, forehead* and *under parts bright yellow, unmarked*; white tail-spots; *narrow black line through* eye; edge of woods and second growth; two characteristic songs. **Golden-winged and Brewster Warblers.**

642. GOLDEN-WINGED WARBLER. 5 in.

(Helminthophila chrysoptera.)

Blue-gray; crown and *patch on wing*, golden yellow; *throat* and stripe through eye, *black*; white below; song, drawling "zee, zee, zee, zee." **Blue-winged and Parula Warblers.**

645. NASHVILLE WARBLER. 4¾ in.

(Helminthophila rubricapilla.)

Olive-green; head and neck bluish gray; indistinct brown patch on crown; *bright yellow below*; no wing-bars; *white eye-ring*; song, not loud, "wee-see, wee see, wit-a-wit." **Tennessee Warbler.**

647. TENNESSEE WARBLER. 4½ in.

(Helminthophila peregrina.)

Olive-green, brightest on rump; head and neck, blue-gray; *dull white below*; faint white line over eye; no wing-bars; song, shrill and feeble. **Nashville Warbler.**

648a. NORTHERN PARULA WARBLER. 4½ in.

(Compsothlypis americana usneae.)

Grayish-blue, *yellowish across the back*; throat and breast yellow, latter crossed by brownish band; wing-bars; peculiar song. **Golden-winged Warbler.**

650. CAPE MAY WARBLER. 5¼ in.

(Dendroica tigrina.)

Yellowish-olive spotted with black on back; crown very dark; cheeks yellow with an *orange-brown ear-patch*; yellow below, black streaks on breast; wing-bars; song all on one note. **Black-throated Green Warbler. Magnolia Warbler.**

652. YELLOW WARBLER. 5 in.

(Dendroica æstiva.)

Yellow all over shading to olive on back; wings and tail darker, showing yellow edgings; orange-brown streaks on breast; song, penetrating and unceasing; nests often in city trees. FEMALE: not so yellow, less streaked. **American Goldfinch.**

654. BLACK-THROATED BLUE WARBLER. 5¼ in.

(Dendroica cærulescens.)

Slaty-blue; below white; black throat and sides; *white patch on wing*; *hoarse* note, "kree, kree." FEMALE: grayish; *no black* but may be recognized by *wing patch*. **Blue-gray Gnatcatcher.**

655. MYRTLE WARBLER. 5½ in.

(Dendroica coronata.)

Blue-gray, streaked; crown, *rump* and spot on each side of breast *yellow*; white below, marked on breast and sides with black; usually in small flocks. **Magnolia Warbler.**

657. MAGNOLIA WARBLER. 5 in.

(Dendroica magnolia.)

Back and tail black; crown blue-gray; yellow rump; *yellow* below, streaked with black on breast and sides; white patch on wings; broad white band across tail, *seen from below*. **Myrtle Warbler. Cape May Warbler.**

658. CERULEAN WARBLER. 4½ in.

(Dendroica cærulea.)

Azure-blue, marked with black on back and sides of head; white below, streaked with blue; two white wing-bars; frequents tree-tops; song resembles that of *Parula*. **Blue-gray Gnatcatcher.**

659. CHESTNUT-SIDED WARBLER. 5 in.

(Dendroica pensylvanica.)

Back shows black streaks mixed with olive-green; yellow cap; white below; *chestnut markings* on *sides of breast*; wing-bars; song, chee, chee, chee, *chee*-ar." **Bay-Breasted Warbler.**

660. BAY-BREASTED WARBLER. 5½ in.

(Dendroica castanea.)

Ashy-brown, black-streaked; black cheeks and forehead; throat, upper part of breast, sides and crown, *rich chestnut-brown*; white wing-bars; song, soft, liquid warble. **Chestnut-sided Warbler.**

661. BLACK-POLL WARBLER. 5½ in.

(Dendroica striata.)

Streaked black and white; *black crown*; white cheeks; below white with line of black spots down sides; tree-tops; song, a staccato musical "chink" repeated rapidly. **Black and White Creeper.**

662. BLACKBURNIAN WARBLER. 5¼ in.

(Dendroica blackburniæ.)

Black, streaked with white; middle of crown, throat and sides of head *flaming orange*; black patch behind eye; white wing-bars; usually, high up in evergreen trees; shrill song; FEMALE: duller. **Prothonotary Warbler.**

667. BLACK-THROATED GREEN WARBLER. 5¼ in.

(Dendroica virens.)

Olive-green; *bright yellow cheeks*; *throat and upper part of breast black*; *tail shows much white*; white wing-bars; song, repeated often and rapidly, "chee, chee, chee, char, chee." **Cape May Warbler. Hooded Warbler.**

671. PINE WARBLER. 5¾ in.

(Dendroica vigorsii.)

Olive-green; yellow breast; sides of head suffused with yellowish, sometimes forming a *yellow line over eye*; two dull white wing-bars; song, a loud, penetrating trill. **Yellow-bellied Flycatcher. Female Maryland Yellow-throat. Female Wilson Black-cap.**

672. PALM WARBLER. 5 in.

(Dendroica palmarum.)

Streaky olive-gray; *chestnut cap*; yellow line over eye; beneath yellowish (brightest on throat and under tail) streaked with brown; feeds on ground in flocks; *tilts its tail* constantly. **Water-Thrushes. Yellow Palm Warbler.**

672a. YELLOW PALM WARBLER. 5½ in.

(Dendroica palmarum hypochrysea.)

Similar to 672 but *uniform* yellow beneath and more strongly olive above; song, soft, broken trill, "tzee-tzee". **Palm Warbler.**

673. PRAIRIE WARBLER. 4¾ in.

(Dendroica discolor.)

Olive-green, *middle of back spotted with chestnut*; sides of head, broad line over eye and under parts, bright yellow; *lines through and below eye* with *chain of streaks down sides black*; white *tail-spots* and yellowish wing-bars; in wild pastures; song, thin, "zee", repeated on ascending scale. **Magnolia, Canadian, Cape May and Female Black-throated Green Warblers.**

674. OVEN-BIRD. 6¼ in.

(Seiurus aurocapillus.)

Olive-green showing yellow tinge; below pure white, thickly spotted; *orange-brown cap* bordered with black stripes; scratches like a hen; tilts tail; under shrubbery; note, "teacher" repeated rapidly with increasing emphasis. **Water-Thrushes. Wood Thrush.**

675. WATER-THRUSH. 6 in.

(Seiurus noveboracensis.)

Plain olive-brown; below white, tinged with sulphur-yellow and thickly streaked, finely *on chin* and *throat*; belly plain; *short bill, yellowish* line over eye; *wags tail*; noticeable song, high, ending low. **Oven-bird. Other Water-Thrushes.**

675a. GRINNELL WATER-THRUSH. 5¾ in.

(Seiurus noveboracensis notabilis.)

Very dark olive-brown; below white, palely tinged with yellowish, thickly streaked; *pale* stripe over the eye; skulks along the very edge of the water; *tilts tail*; brilliant song. **Louisiana Water-Thrush. Oven-bird. Palm Warbler.**

676. LOUISIANA WATER-THRUSH. 6¼ in.

(Seiurus motacilla.)

Olive; white below, buff-tinged and streaked with black; *throat and middle of belly unmarked*; *white line over eye*; loud, ringing song. **Grinnell Water-Thrush. Oven-bird. Palm Warbler.**

678. CONNECTICUT WARBLER. 5½ in.

(Oporornis agilis.)

Olive-green; head ashy, throat darker; *white ring* around eye; belly yellow; wings long and pointed; low bushes and swampy places; penetrating song. **Mourning Warbler.**

679. MOURNING WARBLER. 5½ in.

(Oporornis philadelphia.)

Bright olive-green; head, neck, throat and upper part of breast *bluish-ash*; yellow belly; black band on breast; about bushes and in the grass; noteworthy song. **Connecticut Warbler.**

681. MARYLAND YELLOW-THROAT. 5¼ in.

(Geothlypis trichas.)

Olive-green showing brownish tinge; *broad, black stripe across forehead and through eye*, bordered with grayish-white; yellow beneath, lighter on belly; wings short; in low bushes; song, "witch-i-ty, witch-i-ty, witch-i-ty." FEMALE: duller, *without black stripe* and easily confused with **Female Mourning, Connecticut and Pine Warblers. Kentucky and Wilson Warblers.**

683. YELLOW-BREASTED CHAT. 7¼ in.

(Icteria virens.)

Olive-green; bright yellow below, belly *white*; region about eye blackish, marked with a white line above eye; white spot and shorter line below eye; the largest warbler; remarkable song. **Dickcissel. Maryland Yellow-throat. Yellow-Throated Vireo.**

684. HOODED WARBLER. 5½ in.

(Wilsonia citrina.)

Olive-green; yellow below; head, neck and upper breast black; *yellow "mask" across forehead and cheeks*; white spots on tail; FEMALE: less black. **Maryland Yellow-throat. Wilson Warbler. Canadian Warbler.**

685. WILSON WARBLER. 4¾ in.

(Wilsonia pusilla.)

Bright olive-green; yellow below; *black cap*; in low bushes. **Pine Warbler. Female Maryland Yellow-throat.**

686. CANADIAN WARBLER. 5½ in.

(Wilsonia canadensis.)

Bluish-lead color; yellow below with *a necklace of black spots*; no wing-bars; note-worthy song. **Magnolia Warbler.**

687. AMERICAN REDSTART. 5¼ in.

(Setophaga ruticilla.)

Male black, with *six flame-colored spots* (female olive, with *six yellow spots*); spreads tail like a fan; song, "chee, chee chee, chew;" darting motions.

697. AMERICAN PIPIT. 6 in.

(Anthus rubescens.)

Streaked grayish-brown; below buff, breast and sides darkly streaked; tip of wing and *outer edge of tail whitish*; light line above and ring around eye; *long hind toe-nail*; *wagging walk*; undulating flight; in flocks; song, soft "dee-dee". **Larks. Water-thrushes.**

703. MOCKINGBIRD. 10½ in.

(Mimus polyglottus.)

Ashy-gray, wings and tail darker; whitish below; *wing shows white patch*; outer tail-feathers white; famous for its song. **Catbird. Loggerhead Shrike. Cuckoos.**

704. CATBIRD. 8¾ in.

(Dumatella carolinensis.)

Slate-gray; bill, crown and tail black; *chestnut patch under tail*; about shrubbery; willing to be looked at; calls like a cat; song, greatly varied.

705. BROWN THRASHER. 11¼ in.

(Toxostoma rufum.)

Bright rusty-red; white below, much streaked; long bill and *long, sweeping tail*; wing-bars; song, loud and varied; about bushes. **Wood Thrush.**

718. CAROLINA WREN. 5½ in.

(Thryothorus ludovicianus.)

Reddish-brown, brightest on rump; below rusty-buff; throat and *line over eye*, whitish; wings and tail barred, the latter long and carried erect; "quick as a flash," flight jerky; very loud, ringing song and striking call-notes; near wooded streams in wild pasture undergrowth. **Bewick and Long-billed Marsh Wrens.**

721. HOUSE WREN. 5 in.

(Troglodytes aedon.)

Brown, barred with darker; below grayish, tinged with brown, also barred; rusty-colored tail, *two inches long*; remarkable song. **Other Wrens.**

722. WINTER WREN. 4¼ in.

(Nannus hiemalis.)

Dark tawny-brown, barred on wings and tail; lighter below, barred except on throat and breast; pale line over eye; *stub tail, carried erect*; fine songster. **Other Wrens.**

725. LONG-BILLED MARSH WREN. 5¼ in.

(Telmatodytes palustris.)

Brown, almost black on head, tail and between shoulders, *the latter streaked with white*; barred only on wings and tail; *line over eye* and middle of breast white; *long bill*; spluttering song. **Other Wrens.**

726. BROWN CREEPER. 5½ in.

(Certhia familiaris americana.)

Brown finely streaked with white; silky white below; long curved bill; *flies to the base of tree-trunks and works up in spirals* bracing with its long pointed tail; calls softly, "screep, screep." **Nuthatches.**

727. WHITE-BREASTED NUTHATCH. 5¾ in.

(Sitta carolinensis.)

Ashy-blue; cap and back of the neck, black; white below; constantly exploring the bark of trees; does not brace, woodpecker fashion, with its tail; note, nasal "yank, yank, yank." **Red-breasted Nuthatch. Brown Creeper.**

728. RED-BREASTED NUTHATCH. 4¾ in.

(Sitta canadensis.)

Bluish-gray; crown and *stripe through eye, black* with a white line over eye; *below rusty-red*, throat white; climbs up and down and around trees; note, "cark, cark, cark." **White-breasted Nuthatch.**

731. TUFTED TITMOUSE. 6¼ in.

(Baeolophus bicolor.)

Ashy-gray; below whitish; sides reddish-brown; *head crested*; *bill* and band above *black*; loud emphatic song; whistling call "peto." **Chickadee. Catbird.**

735. CHICKADEE. 5¼ in.

(Penthestes atricapillus.)

Ashy-gray; *black throat* and *cap*; white cheeks; frowzy; lively; often swings head downward from the tips of twigs; call-note "chick-a-dee-dee"; song musical, "pewee," confused with note of *Phœbe*.

748. GOLDEN-CROWNED KINGLET. 4 in.

(Regulus satrapa.)

Olivaceous; two whitish wing-bars; *orange-yellow stripe edged with black on crown*; restless: often seen feeding in evergreens; note, rapid "tzee, tzee, tzee." **Ruby-crowned Kinglet.**

749. RUBY-CROWNED KINGLET. 4¼ in.

(Regulus calendula.)

Dark greenish-olive; light underneath; *ring about eye* and wing-bars white; male shows at will a brilliant ruby crown-patch; remarkable song. **Golden-crowned Kinglet. Warblers.**

751. BLUE-GRAY GNATCATCHER. 5 in.

(Polioptila cærulea.)

Blue-gray; white beneath; *long tail* edged with white; male has a black line over eye; fidgety, never long in a place; floating flight; wheezy song. **Black-throated Blue Warbler. Cerulean Warbler.**

755. WOOD THRUSH. 7¾ in.

(Hylocichla mustelina.)

Bright brown on head shading to olive-brown on rump and tail; white beneath with conspicuous *round* black spots except on throat and middle of belly; remarkable song. **Other Thrushes. Fox Sparrow.**

756. WILSON THRUSH. 7¼ in.

(Hylocichla fuscescens.)

Uniform tawny brown; no ring about eye; below white, faintly tinged and lightly spotted; shy, about bushes; notable song. **Other Thrushes.**

757. GRAY-CHEEKED THRUSH. 7½ in.

(Hylocichla aliciae.)

Uniform olive; below white, *very palely* suffused with buff; cheeks *gray tinged*; breast and sides of throat spotted; **Olive-backed and other Thrushes.**

758a. OLIVE-BACKED THRUSH. 7¼ in.

(Hylocichla ustulata.)

Uniform dark olive; below white, darker on sides; cheeks, throat, breast and ring about eye buff; spotted on breast; song loud and ringing. **Gray-cheeked Thrush. Hermit Thrush. Wilson Thrush.**

759b. HERMIT THRUSH. 7¼ in.

(Hylocichla guttata pallasii.)

Olive-brown; *tail reddish-brown*; below dull white tinged with buff and thickly spotted across the breast; shy, hiding in bushes; famous for its song but silent during migration. **Other Thrushes.**

761. ROBIN. 10 in.

(Planesticus migratorius.)

Dark slate color; black head; *yellow bill*; throat white streaked with black; underparts bright chestnut-red; sings "cheer-i-ly, cheer-i-ly, cheer-up." IMMATURE: spotted with black. **Towhee.**

766. BLUEBIRD. 6½ in.

(Sialia sialis.)

Sky-blue; brownish-red below; female shows less blue; usually in pairs; call, "pu-ri-ty, pu-ri-ty;" often heard before seen. **Blue Jay.**

Note to Key.

Since no key can make up for inaccurate observation, it is essential that at least one or two points about an unknown bird shall have been *clearly seen* before turning to any key for aid in identification.

Keep in mind (1) the *relative size* and (2) see accurately some one or more distinguishing markings of any bird in question.

The following key *includes the land birds* described in the foregoing pages. These are arranged by number, first in three groups according to size (using the Robin and English Sparrow as 10 and 6 inch measures of length respectively) and second, according to distinguishing colors or markings.

Suppose a bird at least as large as a Robin, i. e., 10 inches or more in length, is seen, showing white outer tail-feathers and some yellow beneath. Upon referring to the key only one number, namely 502, will be found which answers this description. When more than one number fulfils the conditions of the observation it becomes necessary to compare descriptions before coming to a decision.

Blackface figures indicate female birds that are noticeably unlike the corresponding males.

BRIGHT COLORS. STREAKED, BARRED OR SPOTTED	Showing BLUE .....
	Showing RED .....
	Showing YELLOW .....
	Showing BLACK .....
	Showing BROWN .....
BRIGHT COLORS. *NEVER* STREAKED, BARRED OR SPOTTED	Showing BLUE .....
	Showing RED .....
	Showing YELLOW .....
	Showing BLACK .....
	Showing BROWN .....
IRIDESCENT COLORS	.....
DULL COLORS	FEW MARKINGS
	Sharply defined .....
	Obscure .....
	NO MARKINGS .....
BACK	STREAKED
	Entirely streaked or mottled, no distinct cap .....
	Rump plain, cap or striped crown .....
	Gray or ashy about head or neck .....
	BARRED AND SPOTTED
	Barred, including wings .....
	Black and white, wings barred or spotted .....
	NO MARKINGS
	Back and wings alike .....
	DISTINCTIVE MARKINGS
	Rump patch white, yellow or brown .....
	On back of neck, between shoulders or middle of back .....

10 inches or more	Between 6 and 10 inches.	Less than 6 inches.
390, 477		658
412a, 761	406, 409, 517, 521, 595	428, 528, 687
412a, 501	604	650, 652, 655, 657, 662, 667, 671
		672a, 681 686, **687**
360, 412a, 477, 501,	406, 409, 493, 494, 534, 604,	533, 650, 655, 657, 659, 660, 662,
		667, 686, 687
289, **331**, 339, 343,	585, 755, 756, 759b	**598**, 659, 660, 718 721, 722, 725
360, 705		726
	766	**598**, 629, 642, 648, 654, 727, 728
		751
761	498, 593, 608, 610, 766	
497	498, 507, 619, 683	529, 628, 637, 642, 648a, 671, 678
		679, 681, 684, 685
488, 490, 497	444, 495, 498, 509, 611, 613,	428, 654
	614	
	495, 506, 587, 619, 766	728
316, 511, 511b	493, 495, 509, 611, 612, 613,	428
	614	
316, 703	417, 444, 567, 622, 704	463, 683, 735, 748, 749
364, **387**, 388, **497**,	456, 459, 461, **495**, **509**, **593**	466, **467**, 529, **598**, 627, 647, 749
621	**608**, **611**, 624	
488	456, **495**, **509**, **610**, **611**	423, **598**, 627, **681**
501	373, 417, 420, **494**, **517**, 540,	533, 542a, 546, 547, 583, 636, 650,
	581, **595**	661
	558	560, 662, 726
	554, 559, 585, 604	563, 584
289, 300, 360, 368, 412a	372, 409	721, 722
	393, 394c, 402	636
316, 387, 388, 488, 511b, 761	456, 495, 567, 611, 624, 674, 676, 683, 756, 757, 758a	423, 627, 645, 647, 675a, 678, 679, 681, 684, 685, 686, 728, 735
331, 412a	595, 612	650, 655, 657, 725
412a	393, 394c, 402. 409	547, 648, 673, 725

UNDER PARTS	No Markings—Pure white, yellow or ashy
	Dull colors, indistinctly shaded
	Few, if any Markings
	Distinctive red, yellow or brown breast
	Belly white or yellow, sharply contrasting with breast
	Distinctive Markings
	A line of streaks down sides or across breast
	Spotted or finely streaked with throat and middle of belly plain
	Bib, collar or band across breast
	Spot or patch on throat, sides, breast or sides of neck
	Tinged
	Noticeably with yellow, red, buff or brownish
HEAD	Top
	Crested or red crown-patch displayed at will
	Crown conspicuously striped
	Distinct cap, no line over eye
	Distinct cap, with line over, through or back of eye
	Forehead showing black, sometimes with bar through eye
	Hood
	Sides
	Eartufts
	Conspicuous line over or through eye
	Inconspicuous but distinctive line over eye
	Conspicuous eye-ring or, black or yellow mask
	Distinctly marked or, colored on cheeks or sides of head
	Neck band
	Bill.
	Hooked, or noticeably long, sometimes curved
	Large and stout, or noticeably short and thick
	Used for hammering

10 inches or more.	Between 6 and 10 inches.	Less than 6 inches.
387, 388,	393, 394a, 406, 444, 461, 463	316, 466, 546, 563, 584, 627, 629,
	554, 614, 624, 683	641, 642, 645, 658, 678, 726, 727,
		751
703	456, 461, **506**, **507**, **509**, 622,	467, 563, 584, 647, 725, 735, 748,
		749, 751
501, 761	613, 683, 766	628, 637, 645, 671, 681, 684, 685,
	452, 567, 587, 604, 612, 683,	628, 631, 654, 678, 679
	402, 585	655, 657, 658, 659, 661, 662, 673
		686
360	417, 420, 567, 587, 655, 676,	547, 583, 648a, 654, 658, 660, 667,
		684
390, 412a	417, 587, 616	583, 667, 679
375, 412a, 501	402, 474, 558, 559, 581, 595,	428, 528, 642, 679, 689, 735
	604, 612	
	402, 409, 452, 517, 675, 757	463, 528, 547, 563, 583, 629, **671**,
	758a	672, 672a, 722, 728
289, 390, 477	402, 444, 452, 593, 619, 731,	749
	331, 554, 558, 674	546, 636, 748
	409, 704	529, 641, 657, 660, 661, 685, 729
		735
	559	560, 563, 642, 655, 659, 672, 728
	593, 619	584, 660, 681, 751
352, 497	406, 495, 506, 507	629, 637, 679, 684
300, 366, 375	373, 474	
289, 501	393, 394c, 474, 474b, 558,	628, 641, 642, **650**, 657, 667, 671,
	604, 622, 675, 676, 683	673, 675a, 718, 725, 751
497	509, 624, 675a	542a, 647, **658**, 672, 697
	683, 758a	463, 749, 681, 628, 645, 629, 684
		678, 631
316, 360, 621	409, 619, 731, 757	547, 583, 642, 650, 658, 660, 661,
		662, 667, 735
390, 477	393, 494	
331, 360, 387, 388,	521, 622	428, 725, 726
621, **705**		
	495, 517, 593, 595	529, 598
412a	393, 394c, 402, 406, 409, 412a	

WINGS		Showing notches in flight
		Long and pointed
		One or two conspicuous wing-bars
		Spots, patches or bright markings
TAIL	MARKINGS	
		Outer feathers conspicuously white or spotted
		Reddish brown or, tipped with white or yellow
		Barred or, banded with black or white
	SIZE	
		Very long, sometimes keeled or forked
		Very short
	MOVEMENTS	
		Used for bracing
		Jerking or tilting motions
	SHAPE	
		Square
		Rounded
		Notched
		Narrow and pointed

10 inches or more.	Between 6 and 10 inches.	Less than 6 inches.
339, 343, 488		
	417, 420, 611, 613, 614	423
705	452, 461, 506, 507, 554, 559	463, 465, 467, 528, 529, 628, 629
		631, 641, 648a, 658, 659, 660, 661,
		667, 671, 673, 726, 749
393, 497, 621, 703,	402, 406, 420, 498, 587, 595,	642, 654, 655, 657, 687
	622	
387, 390, 501, 703,	393, 394c, 474, 540, 567, 587,	655, 658, 660, 667, 671, 672, 687
761	622	697, 751
316, 332, 333, 337,	444, 452, 585, 619, 759b	
339, 360, 387, 477		
300, 331, 332, 360,	394c, 402, 409	657, 721, 722, 725
366, 477		
316, 387, 388, 511b,	613	726, 751
705		
	412a	423, 428, 721, 722, 727, 728
412a	393, 394c, 402, 406, 409	726
	456, 674, 675, 675a, 676	467, 672, 672a, 675a, 697
332	612, 614	546
333		
	459, 613, 616	533
316		542a, 547

Table of Occurrence.

In this table the birds observed by the authors in Lincoln Park, Chicago, are arranged according to the order of their comparative frequency. The abundance of the birds, that is, the number of individual birds of different species, is in no wise shown but simply the relative representation of each species. For instance, out of a total of 454 mornings covering observations during six years, the *Robin* was seen on 383 different mornings. The record for 1902, during the absence of the authors, was made by Mr. H. V. Bozell.

		NUMBER OF MORNINGS SEEN IN LINCOLN PARK, CHICAGO						
		1898	1899	1900	1901	1902	1903	Total
1	Robin	62	52	57	69	61	82	383
2	Bronzed Grackle	57	58	57	60	57	72	361
3	Blue Jay	49	58	61	65	40	51	324
4	Cowbird	41	34	44	44	39	54	256
5	Junco	33	35	32	32	51	42	225
6	Towhee	35	18	24	44	45	48	214
7	Song Sparrow	27	33	19	38	37	36	190
8	Flicker	29	18	21	33	37	46	184
9	Ruby-crowned Kinglet	31	28	23	30	22	39	173
10	White-throated Sparrow	30	23	23	31	26	35	168
11	Bluebird	26	1	7	31	35	50	150
12	Wilson Thrush	34	35	23	21	11	20	144
13	Yellow-bellied Sapsucker	23	12	15	30	27	34	141
14	Yellow Warbler	27	30	24	18	13	27	139
15	Belted Kingfisher	25	21	24	27	21	19	137
16	Redheaded Woodpecker	23	23	16	26	16	26	130
17	Myrtle Warbler	19	25	11	21	22	31	129
18	Brown Thrasher	27	8	20	21	16	29	121
19	Brown Creeper	18	15	19	14	28	27	121
20	Catbird	22	27	16	17	10	17	109
21	Golden-crowned Kinglet	18	14	13	26	15	23	109
22	Chipping Sparrow	25	11	11	12	17	32	108
23	American Goldfinch	21	19	12	20	5	18	95
24	Tree Swallow	13	11	16	19	13	22	94
25	American Redstart	18	16	19	8	10	20	91
26	Barn Swallow	15	14	10	19	14	19	91
27	Fox Sparrow	11	9	14	9	27	21	91
28	Chimney Swift	16	11	14	15	11	22	89
29	Blue-gray Gnatcatcher	18	16	11	10	16	17	88
30	White-crowned Sparrow	9	5	18	22	16	17	87
31	Palm Warbler	8	21	7	11	19	20	86
32	Hermit Thrush	13	9	10	18	9	27	86
33	Black and White Creeper	15	15	11	13	12	18	84
34	Least Flycatcher	18	18	8	14	7	18	83
35	Magnolia Warbler	13	13	13	5	16	20	80
36	B'k-throated Blue Warbler	12	14	9	13	12	16	76
37	Olive-backed Thrush	8	4	14	16	11	23	76
38	Phoebe	15	4	5	16	15	19	74
39	Baltimore Oriole	18	6	10	15	11	13	73
40	Grinnell Water-Thrush	17	6	9	14	8	17	71
41	Field Sparrow		2	12	17	23	17	71
42	Swamp Sparrow	4	4	14	12	17	17	68
43	Crow	4	11	7	11	16	18	67

		NUMBER OF MORNINGS SEEN IN LINCOLN PARK, CHICAGO						
		1898	1899	1900	1901	1902	1903	Total
44	Chestnut-sided Warbler	11	6	11	13	9	16	66
45	Oven-bird	9	11	11	12	11	11	65
46	White-breasted Nuthatch	12	6	17	21	6	2	64
47	Maryland Yellow-throat	18	17	10	8	3	15	61
48	Wood Pewee	12	14	9	6	7	13	61
49	Downy Woodpecker	14	7	4	8	17	10	60
50	House Wren	1	...	10	11	13	24	59
51	Red-eyed Vireo	13	10	5	6	6	16	56
52	Loggerhead Shrike	5	1	16	13	7	13	55
53	Indigo Bunting	12	17	2	6	5	11	53
54	Bl'k-throated Green Warbler	4	9	4	9	6	12	44
55	Blackburnian Warbler	11	4	9	7	5	6	42
56	Black-poll Warbler	6	7	8	3	3	15	42
57	Kingbird	8	1	5	3	6	17	40
58	Scarlet Tanager	7	3	7	4	3	10	34
59	Ruby-thr. Humming-bird	7	9	4	3	1	10	34
60	Mourning Dove	5	3	6	10	2	8	34
61	Rose-breasted Grosbeak	5	2	6	8	6	6	33
62	Tree Sparrow	...	...	10	3	12	8	33
63	Winter Wren	3	5	11	...	3	10	32
64	Meadowlark	3	...	7	13	5	4	32
65	Purple Martin	1		...	6	4	20	31
66	Cape May Warbler	3	2	9	2	6	7	29
67	Warbling Vireo	7	1	4	3	4	10	29
68	Mourning Warbler	5	8	2	4	4	5	28
69	Wilson Black-cap Warbler	9	1	3	2	5	8	28
70	Yellow-billed Cuckoo	8	7	1	3	1	7	27
71	Crested Flycatcher	5	2	...	1	10	9	27
72	Bobolink	2	...	9	10	1	4	26
73	Canadian Warbler	8	3	6	4	1	4	26
74	Red-winged Blackbird	4	...	2	8	3	7	24
75	Wood Thrush	8	3	...	5	3	3	22
76	Orchard Oriole	4	3	5	1	1	6	20
77	Red-breasted Nuthatch	...	...	10	...	3	7	20
78	Marsh Hawk	...	2	1	8	5	4	20
79	Hairy Woodpecker	3	1	4	...	4	7	19
80	Bay-breasted Warbler	1	1	2	1	4	10	19
81	Parula Warbler	6	...	...	2	9	2	19
82	Chickadee	3	...	7	8	...	...	18
83	Pine Warbler	...	...	3	1	5	9	18
84	Henslow Sparrow	3	2	1	2	3	6	17
85	Nashville Warbler	1	1	4	1	...	9	16
86	Yellow-throated Vireo	2	...	2	2	3	7	16

		NUMBER OF MORNINGS SEEN IN LINCOLN PARK, CHICAGO						
		1898	89	1900	1901	1902	1903	Total
87	Cedar Waxwing	6	5	...	1	2	1	15
88	Purple Finch	4	...	4	...	1	5	14
89	Vesper Sparrow	...	...	6	...	4	3	13
90	Blue-headed Vireo	...	...	2	1	6	4	13
91	Gray-cheeked Thrush	...	...	...	...	3	10	13
92	American Sparrow Hawk	1	1	...	4	2	4	12
93	Yellow-bellied Flycatcher	...	...	5	...	2	4	11
94	Nighthawk	...	2	1	1	...	7	11
95	Lincoln Sparrow	...	...	1	...	1	8	10
96	Black-billed Cuckoo	...	1	2	2	2	2	9
97	Rusty Blackbird	...	2	...	3	...	2	7
98	Yellow-breasted Chat	...	...	...	...	1	6	7
99	Long-billed Marsh Wren	1	2	...	...	...	3	6
100	Louisiana Water-Thrush	...	...	1	...	3	2	6
101	Prothonotary Warbler	...	1	...	...	3	1	5
102	Savanna Sparrow	...	...	...	...	...	5	5
103	Blue Golden-winged Warb.	1	...	1	1	1	..	4
104	Whip-poor-will	1	1	...	1	...	1	4
105	Connecticut Warbler	...	...	...	...	...	3	3
106	Dickcissel	...	...	...	1	2	...	3
107	Tennessee Warbler	2	...	...	...	...	...	2
108	Mockingbird	...	...	...	2	...	...	2
109	Cerulean Warbler	...	...	1	...	1	...	2
110	Summer Tanager	...	1	...	...	...	...	1
111	Cardinal	...	...	1	...	...	...	1
112	Red-bellied Woodpecker	1	...	...	...	...	...	1
113	Hooded Warbler	...	...	...	...	...	1	1
114	Yellow-headed Blackbird	...	...	...	1	...	...	1
	Total number of days	66	77	74	78	72	87	454
	Av'ge No. of kinds seen daily	18.83	12.75	14.59	16.23	16.45	19.53	16.34

Table of Arrival.

NOTE:—The following table gives the average date of the first arrival of each bird together with the data from which it was reckoned, for the seven years from 1897 to 1903 inclusive, *as observed in Lincoln Park*, Chicago, by the authors. The record for 1902, in the absence of the authors, was kept by Mr. Harold V. Bozell.

Attention is called to the fact that many birds which are common in the neighboring country are rare in the Park. Among these may be mentioned the *Red-winged Blackbird, Bobolink, Warbling Vireo, Prairie Horned Lark and Tufted Titmouse.*

	Average First Appearance	MARCH						APRIL						MAY					
		1897	1898	1899	1900	1901	1902	1903	1897	1898	1899	1900	1901	1902	1903	1897	1898	1899	1900	1901	1902	1903
Family COLUMBIDAE																						
Mourning Dove	April 15.			25								6	10	26	1		9					
Family FALCONIDAE.																						
Marsh Hawk	April 12.					25					25	19		21	1							
Sparrow Hawk	April 17.					24	21				25	18			30		18					
Family CUCULIDAE																						
Yellow-billed Cuckoo	May 14																19	1	16	17	17	12
Black-billed Cuckoo	May 16																	27	12	15	16	12
Family ALCEDINIDAE																						
Belted Kingfisher	April 1.	28	25	22		26						10		11	10							
Family PICIDAE																						
Hairy Woodpecker	April 11.						25	6		11		19						24				
Downy Woodpecker	March 30			27			10	6	7	8		25	5									
Yellow-bellied Sapsucker	April 3		30			19	27		25		8	6			1							
Red-bellied Woodpecker	May 22																					
Red-headed Woodpecker	April 29																22					
Flicker	March 31		25			23	24	18	15		11	7							6			
Family CAPRIMULGIDAE																						
Whip-poor-will	May 12										30						21			9		17
Nighthawk	May 15																	10	13	18	18	18
Family MICROPODIDAE																						
Chimney Swift	April 29									30		30	17	22		1		11				5
Family TROCHILIDAE																						
Ruby-throated Hummingbird	May 15																10	6	13	16	17	13

Family TYRANNIDAE																						
Kingbird	May 3								29	30				21				10	6	10		5
Crested Flycatcher	May 3										30			21	29		3			11		
Phoebe	March 27		20			18	15	17	7		17	1										
Wood Pewee	May 9								27					28			19	10	11	16		12
Yellow-bellied Flycatcher	May 4											29									1	12
Least Flycatcher	May 4									30	20	30		21		12				6		9
Family CORVIDAE																						
Blue Jay	Resident																					
Crow	March 11		9	26	12	3	6	8														
Family ICTERIDAE																						
Bobolink	May 9																14		8	4	12	8
Cowbird	March 23		16			19	1	14	4		10	1										
Yellow-headed Blackbird	May 17																			17		
Red-winged Blackbird	April 5					22	26	17				18					7					
Meadowlark	March 17		14		27	19	10	13														
Orchard Oriole	May 8																15	6	11	10	2	5
Baltimore Oriole	May 3									30								2	6	4	2	5
Rusty Blackbird	March 31							17				19	5									
Bronzed Grackle	March 20	29	14	20	24	23	10	14														
Family FRINGILLIDAE																						
Purple Finch	April 16									24		15		11	15							
American Goldfinch	May 2								25		28		30				6		7		2	7
Vesper Sparrow	April 14											22		18	1							
Savanna Sparrow	March 19							19														
Henslow Sparrow	April 24									29	26	21	30	24	15							
White-crowned Sparrow	April 23.						11				29		20		29	5	9		2			
White-throated Sparrow	April 13						24	21	26	13	19	21	17									
Tree Sparrow	March 23						7	13				6	5									
Chipping Sparrow	April 12								15	13	18	8	8	13	12							
Field Sparrow	April 3						11	19			23	17	5									
Junco	March 16	28	9	14	23	18	8	13														
Song Sparrow	March 20		15	19	27	18	8	12	8													
Lincoln Sparrow	May 14																		10	23	12	10
Swamp Sparrow	April 14						11				20	21	18		12		7					

	Average First Appearance	MARCH						APRIL						MAY					
		1897	1898	1899	1900	1901	1902	1903	1897	1898	1899	1900	1901	1902	1903	1897	1898	1899	1900	1901	1902	1903
Family FRINGILLIDAE—Continued																						
Fox Sparrow	March 23		30	14		18	10	17	8			5										
Towhee	March 27		17			25	10	18	7		11	7										
Cardinal	April 11	28										25										
Rose-breasted Grosbeak	May 7													28				10	11	4		9
Indigo Bunting	May 11																14	10	21	10	2	6
Dickcissel	May 17																			16	18	
Family TANAGRIDAE																						
Scarlet Tanager	May 5																14	4	2	5	3	5
Summer Tanager	May 4																	4				
Family HIRUNDINIDAE																						
Purple Martin	May 6												27	23	17		25	30				
Barn Swallow	April 21								18		23	26	10	18	24		1					
Tree Swallow	April 11						11				12	18	12		1		11					
Family BOMBYCILLIDAE																						
Cedar Waxwing	April 16			27						11				24	5					16		
Family LANIIDAE																						
Loggerhead Shrike	March 13		14		9	3	9	1			11											
Family VIREONIDAE																						
Red-eyed Vireo	May 5										29						10		12	4	2	4
Warbling Vireo	May 8								27								15	12	6	11	7	5
Yellow-throated Vireo	May 3													28			1		12	5		12
Blue-headed Vireo	May 8																		17	5	2	8
Family MNIOTILTIDAE																						
Black and White Creeper	April 28.								28	30	21	26		28	27					4		
Prothonotary Warbler	May 11													27				16				19

Blue Golden-winged Warbler	May 10																14		12	12	2	
Nashville Warbler	May 7																10	4	9	19	2	1
Tennessee Warbler	May 11																11					
Northern Parula Warbler	May 8																11			12	3	9
Cape May Warbler	May 5																13	1	2	5	2	9
Yellow Warbler	May 2									30	29	30			29	11				6	2	
Black-throated Blue Warbler	May 7															11	11	4	8	5	2	5
Myrtle Warbler	April 14								14	16	14	19	14	17	8							
Magnolia Warbler	May 2								26		27			21			11		8	6		5
Cerulean Warbler	May 12																		12			
Chestnut-sided Warbler	May 12															21	10	30	3	7	2	9
Bay-breasted Warbler	May 9													22			20	4	11	15		9
Black-poll Warbler	May 13																19	10	13	16	12	6
Blackburnian Warbler	May 4											28		28	30	12	10	3		10		
Black-throated Green Warbler	April 29								18		23	27	26	28			17					2
Pine Warbler	April 25											26	30	21	22							
Palm Warbler	April 24									29	20	27	26	21	22							
Oven-bird	May 5															11	1	3	5	5	1	6
Grinnell Water-Thrush	April 25									30	28	23	17	21	29							
Louisiana Water-Thrush	April 30													27								5
Connecticut Warbler	May 20																					20
Mourning Warbler	May 11																20	13	6	16	2	11
Maryland Yellow-throat	May 1								26		28						1		5	5	2	1
Yellow-breasted Chat	May 6																				2	11
Hooded Warbler	May 12																					12
Wilson Black-cap Warbler	May 14															21	6	22	10	16	3	17
Canadian Warbler	May 13																19	16	12	16	6	12
American Redstart	May 5										28					11	1		11	6	2	5
Family TROGLODYTIDAE																						
Mockingbird	April 29												29									
Catbird	April 25						26		26		28	30	28				1					5
Brown Thrasher	April 22								26	24	27	16	24	22	12							
House Wren	April 22								14		30		21	23	12		4					
Winter Wren	April 13					22			8	25	30			19	8							
Long-billed Marsh Wren	April 8							29		14		12										
Family CERTHIIDAE																						
Brown Creeper	March 31						21	18	7	7	6	2	4									

	Average First Appearance	MARCH						APRIL						MAY					
		1897	1898	1899	1900	1901	1902	1897	1898	1899	1900	1901	1902	1897	1898	1899	1900	1901	1902	1903
Family PARIDAE																				
White-breased Nuthatch	April 1		29			18	31		7		11	2		2						
Red-breasted Nuthatch	April 28												22	28				3		
Chickadee	April 1				19				1			13								
Family SYLVIIDAE																				
Golden-crowned Kinglet	March 31		14				28	19	7		11	6	5							
Ruby-crowned Kinglet	April 8							19	14	1	13	7	17	13						
Blue-gray Gnatcatcher	April 23									25	22	18	28	22	25					
Family TURDIDAE																				
Wood Thrush	May 1								18				29			3	1		4	12
Wilson Thrush	April 16								10	12	7	11	26	8	11					
Gray-cheeked Thrush	May 16																		21	11
Olive-backed Thrush	May 1											30	22	29		1	4	8		
Hermit Thrush	April 4		31					19			11	7	5	13						
Robin	March 15	28	9	14	24	14	10	7												
Bluebird	March 18	28	8		31	17	7	7			4									

Notes.

Table of Distribution and Occurrence.

The following table has been compiled in the hope that wherever the bird student may be in the northern states, east of the Mississippi river, he may have at hand for comparison the results of some reliable observer in the same or a nearby area. No better method of gaining a clear idea of the movements of birds can be suggested than to study carefully their distribution and occurrence within related areas. In order to do this understandingly, the main topographic features, taken as a whole or state by state, should be considered. The bird population of any region will be found to be closely related to its mountains, river basins, prairies, forests and wet or dry areas.

Attention is called to the meeting and intermingling of the Carolinian and Alleghenian faunal areas in these northeastern states. The teacher of geography as well as the bird student will find great interest in following out the limits of life conditions in these areas.

The table contains in addition to the 200 species already described, 148 species of frequent but rarer occurrence throughout the area covered. It should be said that considerable difficulty lies in the way of reducing to a few arbitrary symbols the notes of several ornithologists whose data are not equally complete and who may not use the same descriptive terms, or who may attach a different sigificance to the same terms. The authors nevertheless have earnestly tried to interpret correctly each authority cited and trust that the useful features of the result will outweigh its shortcomings.

The *varying dates* of the pubished lists for the different localities given should be kept constantly in mind in making

comparisons with new lists, because the bird population of any locality is as truly changeable, although for different reasons, as its human population.

The data given have been compiled from the following published lists:—

1. **Maine.** Knight, O. W., Birds of Maine. 1908.
2. **New Hampshire.** Allen, Glover M., A List of the Birds of New Hampshire. 1903.
3. **Vermont.** Perkins, G. H., and Howe, C. D., A Preliminary List of the Birds found in Vermont. 1901.
4. **Massachusetts.** Brewster, Wm., The Birds of the Cambridge Region of Massachusetts. 1906.
5. **Massachusetts.** Clarke, H. L., The Birds of Amherst and Vicinity, 2nd edition. 1906.
6. **Rhode Island.** Howe, R. H. Jr., and Sturtevant E., The Birds of Rhode Island. 1899. Supplement, 1903.
7. **Long Island.** Braislin, W. C., A List of the Birds of Long Island, N. Y. 1907.
8. **New York City.** Chapman, F. M., The Birds of the Vicinity of New York City. 1906.
9. **Pennsylvania and New Jersey.** Stone, Witmer, The Birds of Eastern Pennsylvania and New Jersey. 1894.
10. **Ohio.** Jones, Lynds., The Birds of Ohio. 1903.
11. **Indiana.** Butler, A. W., The Birds of Indiana. 1897.
12. **Illinois.** Woodruff, F. M., The Birds of the Chicago Area. 1907.
13. **Missouri.** Widmann, Otto, A Preliminary Catalog of the Birds of Missouri. 1907.

KEY TO TABLE OF DISTRIBUTION AND OCCURRENCE.

Column I Number

- A.....abundant.
- a.....common or very common.
- F.....frequent, rather common, not uncommon.
- f.....infrequent, not common, rather rare, uncommon.
- —.....rare.
- =.....very rare or casual.
- x.....accidental, out of normal range.
- i.....irregular, from year to year common, rare or absent.
- (blank)..no record.
- d.....doubtful, records scanty or incomplete.

Column II Status

- R.....Permanent Resident (May be partially migratory, increasing in number during the spring or fall or both; or within the limits of a single state withdrawing largely to the north in summer and to the south in winter in search of special breeding and feeding areas.)
- r.....Permanent Resident most abundant in winter.
- r.....Winter Resident.
- P.....Winter Resident with a few in summer.
- s.....Summer Resident.
- S.....Summer Resident with a few in winter.
- V.....Winter Visitant.
- W.....Winter Visitant with a few in summer.
- v.....Summer Visitant.
- T.....Regular Transient, a spring and fall migrant.
- t.....Regular Transient, most abundant in fall.
- ↑.....Regular Transient most abundant in spring.
- I.....Regular Fall Transient, not recorded in Spring.
- I.....Regular Transient with some wintering locally.
- II.....Regular Transient with some summering, or breeding locally.
- III.....Regular Transient with a few winter and summer.
- IV.....Regular Transient frequent or common in winter, infrequent or rare in summer.
- X.....Regular Transient frequent or common in summer, rare in winter.
- d.....doubtful, may occur or probably occurs.
- ?.....no record within recent years.(usually indicates species formerly common).
- D.....an introduced species.

Column III Distribution

- g.....general throughout area cited.
- L.....not general, confined mostly or entirely to particular regions within area cited.
- l.....general, but restricted to particular breeding environments. (r. g. swamps dry pasture, second growth, etc.,) or, general, but for no apparent reason absent from many localities throughout area cited, hence local.
- c.....found on the coast.
- C.....found largely on the coast, a few inland.
- ɔ.....found largely inland, a few on the coast.
- n.....inland.
- m.....confined mostly to mountains (High altitudes are equivalent to northern latitudes).
- ?.....distribution doubtful.
- i.....irregular, or erratic, likely to occur at any point. (Usually applies to species going in flocks).

Figures in any column indicate number of recorded instances of rare species.

Symbols are occasionally placed without reference to the column-title in order to express the data given.

119 Cormorant
120 Double-crested Cormorant

125 American White Pelican

129 American M
130 Red breaste
131 Hooded Mer

Purple Sandpiper
Pectoral Sandpiper
White-rumped Sandpiper
Baird's Sandpiper
Least Sandpiper
Red-backed Sandpiper
Semipalmated Sandpiper
Western Sandpiper

265 Hudsonian Curlew
Eskimo Curlew

315 Passenger Pigeon
316 Mourning Dove

ted Piping Plover
rvations established and stocked

| | | |

Black-throated Blue Warbler
Myrtle Warbler

billed Marsh Wren
lled Marsh Wren

726 Brown

727 White-breasted Nuthatch
728 Red-breasted Nuthatch

Memo.

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MIGRATION RECORD

Weather Signs	Wind Signs	Record Signs
B = Fair	[illegible]	1 = Dark Bird
C = Cloudy	[illegible]	2 = Dark Bird
F = Fair	[illegible]	3 = Dark Bird
G = Good	[illegible]	4 = Dark Bird
H = Warm	[illegible]	5 = Dark Bird
		6 = Dark Bird

(Observers Name)

Weather Record	MARCH	APRIL	MAY
Direction of Wind			
19			
Bittern, American			
Lesser			
Blackbird, Red-winged			
Rusty			
Yellow-headed			
Bluebird			
Bobolink			
Bobwhite			
Bullfinch			
Bullfinch, Indigo			
Cardinal			
Catbird			
Chat, Yellow-breasted			
Chickadee			
Cook, American			
Cowbird			
Creeper, Black and White			
Brown			
Crossbill, American			
Crow, Common			
Fish			
Cuckoo, Black-billed			
Yellow-billed			
Dickcissel			
Dove, Mourning			
Duck, American Scaup			
Black			
Lesser Scaup			
Ruddy			
Wood			
Eagle, Bald			
Fish, Purple			
Flicker			
Flycatcher, Crested			
Green-crested			
Lesser			
Olive-sided			
Traill			
Yellow-bellied			
Gallinule, Florida			
Grasshopper, Blue-gray			
Goldeneye, American			
Goldfinch, American			
Goose, Canada			
Grackle, Bronzed			
Grosbeak, Blue			
Grosbeak, Rose-breasted			
Gull, Herring			
Bonaparte			
Ring-billed			
Hawk, Marsh, Sparrow			
Broad-winged			
Cooper			
Marsh			
Red-tailed			
Red-shouldered			
Sharp-shinned			
Heron, Black-crowned Night			
Great Blue			
Green			
Humming-bird, Ruby-throated			
Jay, Blue			
Junco			
Killdeer			
Kingbird			
Kingfisher, Belted			
Kinglet, Golden-crowned			
Ruby-crowned			
Loon			
Lark, Horned			
Prairie Horned			
Mallard			
Martin, Purple			
Meadowlark			
Merganser, American			
Hooded			
Red-breasted			
Mockingbird			
Nightingale			
Nuthatch, Red-breasted			
White-breasted			
Old Squaw			
Oriole, Baltimore			
Orchard			
Osprey, American			
Ovenbird			
Owl, American Long-eared			
Barred			
Great Horned			
Saw-whet			
Screech			
Short-eared			
Pewee, Wood			
Phoebe			
Pintail			
Plover, American Golden			
Semipalmated			
Pipit, American			
Rail, Virginia			
Red-bird			
Redpoll			
Redstart, American			
Robin			
Sandpiper, Bartramian			
Least			
Pectoral			
Semi-palmated			
Solitary			
Spotted			
Sapsucker, Yellow-bellied			
Sparrow, White-winged			
Shrike, Loggerhead			
Northern			
Siskin, Pine			
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Shipe, Wilson			
Snowflake			
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Wilson			
Wood			
Titmouse, Tufted			
Towhee			
Vireo, Blue-headed			
Red-eyed			
Warbling			
White-eyed			
Yellow-throated			
Warbler, Bay-breasted			
Black-and-Yellow			
Black-poll			
Black-throated Blue			
Black-throated Green			
Blue-gray Gnatcher			
Blue-winged			
Canadian			
Cape May			
Cerulean			
Chestnut-sided			
Connecticut			
Hooded			
Magnolia			
Mourning			
Myrtle			
Nashville			
Palm			
Parula			
Prairie			
Pine			
Prothonotary			
Tennessee			
Wilson Black-cap			
Yellow			
Yellow Palm			
Water-thrush			
Grinnell			
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Waxwing, Cedar			
Whip-poor-will			
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Red-bellied			
Red-headed			
Wren, Carolina			
House			
Long-billed Marsh			
Winter			
Yellowlegs			
Greater			
Yellow-throat, Maryland			
Extra List			

Weather Signs

B = Fair
C = Cloudy
F = Rain
S = Snow
W = Warm

Wind Signs

Record Sig

MARC

Weather Record

Direction of Wind

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